

LBT-A195/D250/G2000

SERVICE MANUAL



REVISED

Discard LBT-A195/D250/G2000 Service Manual (No. 9-959-306-13) previously issued. This Service Manual contains it.

US Model
LBT-D250/G2000

Canadian Model
LBT-A195/G2000

UK Model
E Model
LBT-A195

- LBT-A195/D250/G2000 are composed of following models.
As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-A195				LBT-D250	LBT-G2000	
	CND	UK	E	MX	US	US	CND
COMPACT DISC STEREO DECK RECEIVER	HCD-A195				HCD-D250	HCD-G2000	
SPEAKER SYSTEM	SS-G2000		SS-D195		SS-D255	SS-G2000	
TURN TABLE		PS-LX56P					

CND : Canadian Model
MX : Mexican Model

NOTE :

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

PARTS LIST

Part No.	Description	Part No.	Description
1-467-430-11	COMMANDER, STANDARD (RM-S221)	4-937-945-11	PLATE (TRANSPORT), LOCK (HCD)
1-501-374-11	ANTENNA, LOOP	* 4-957-532-01	SNOW BOX (L) (PS-LX56P)
1-501-659-41	ANTENNA (FM)	* 4-957-533-01	SNOW BOX (R) (PS-LX56P)
2-181-754-21	COVER (MLY), BATTERY (for RM-S221)	* 4-963-172-01	INDIVIDUAL CARTON (G2000 : US)
* 3-376-136-01	CUSHION (HALF) (HCD)	* 4-963-173-02	CUSHION (HCD)
3-758-284-11	MANUAL, INSTRUCTION (UK) (ENGLISH)	* 4-963-176-01	INDIVIDUAL CARTON (D250)
3-758-284-21	MANUAL, INSTRUCTION (US) (ENGLISH, SPANISH)	* 4-963-177-01	INDIVIDUAL CARTON (A195 : CND)
3-758-284-31	MANUAL, INSTRUCTION (A195 : CND) (ENGLISH, FRENCH)	* 4-964-535-01	CUSHION (SS-D255/G2000)
3-758-592-11	MANUAL, INSTRUCTION (E, MX) (ENGLISH, FRENCH, SPANISH, CHINESE)	* 4-964-536-01	CUSHION (SS-D195)
3-758-592-51	MANUAL, INSTRUCTION (G2000 : CND) (ENGLISH, FRENCH)	* 4-968-317-01	INDIVIDUAL CARTON (A195 : E)
		* 4-968-318-01	INDIVIDUAL CARTON (A195 : MX)
		* 4-968-816-01	INDIVIDUAL CARTON (A195 : UK)
		* 4-971-630-01	INDIVIDUAL CARTON (G2000 : CND)
		A-4674-087-A	TURN TABLE MAT ASSY (PS-LX56P)

COMPONENT HI-FI STEREO SYSTEM

SONY®



9-959-306-14

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

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HCD-A195/D250/G2000

SERVICE MANUAL

US Model

HCD-D250/G2000

Canadian Model

HCD-A195

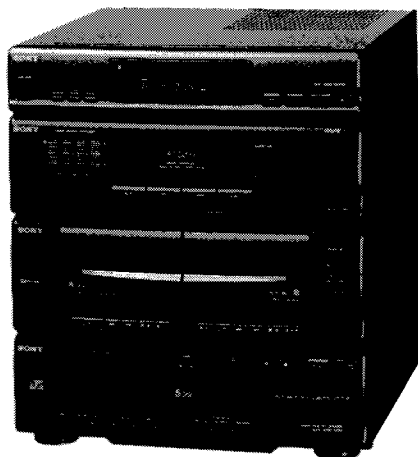


Photo: HCD-G2000

HCD-A195, HCD-D250 and HCD-G2000 are the tuner, deck, CD and amplifier section in LBT-A195, LBT-D250 and LBT-G2000 respectively.

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION :

With 6-ohm loads, both channels driven, from 70—15,000Hz ; rated 10 watts per channel minimum RMS power, with less than 10% total harmonic distortion from 250 milliwatts to rated output.

Amplifier

Continuous RMS power output

10W+10W (6 ohms, at 1kHz,
5% THD)

Input	Jack type	Sensitivity	Impedance
VIDEO (G2000)	Phono	300 mV	47 kilohms
PHONO (A195/D250)	Phono	3 mV	47 kilohms

Output	Jack type	Impedance
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response 15Hz to 50kHz ± 3 dB

CD Section	Model Name Using Similar Mechanism	CDP-411/511/D7
	CD Mechanism Name	CDM14-5BD13
	Base Unit Name	BU-5BD13
DECK Section	Model Name Using Similar Mechanism	HTC-D159
	Tape Transport Mechanism Type	TCM-180VW-H11

Tuner

System

FM stereo

FM/AM superheterodyne tuner

FM tuner section

Tuning range

87.5 to 108MHz

Antenna

300 ohms balanced

75 ohms unbalanced

Intermediate frequency 10.7MHz

AM tuner section

Tuning range

AM: 530 to 1,710kHz

Antenna

AM loop antenna

External antenna terminal

Intermediate frequency 450kHz

Cassette deck

Recording system

4-track 2-channel stereo

Frequency response

DOLBY NR OFF

With Type II cassette (Sony UX-S)

40Hz to 14kHz (± 3 dB)

With Type I cassette (Sony HF-S)

40Hz to 13kHz (± 3 dB)

Wow and flutter

W. PEAK $\pm 0.2\%$ (DIN) (A195)

0.1% (WRMS) (D250/G2000)

—continued on next page—



COMPACT DISC DECK RECEIVER

SONY®

Compact disc player

Laser	Semiconductor laser
Wavelength	780—790nm
Frequency response	2Hz to 20kHz±1dB
Signal-to-noise ratio	More than 93dB
Dynamic range	More than 90dB
Harmonic distortion	Less than 0.01% (1kHz)
Channel separation	More than 90dB (1kHz)

General

Power requirements	120V AC, 60Hz
Power consumption	45W
Mass	Approx. 9.9kg (20 lb 14 oz)
Dimensions	Approx. 355×395×405mm (14×15 ⁵ / ₈ ×16 inches) (w/h/d, including projections)

Supplied accessories

Remote commander RM-S221	(1)
Batteries Sony SUM-3 (NS)	(2)
FM wire antenna	(1)
AM loop antenna	(1)

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

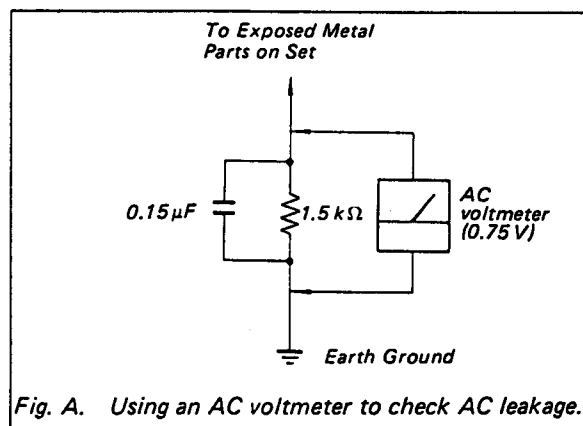





Fig. A. Using an AC voltmeter to check AC leakage.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!


LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

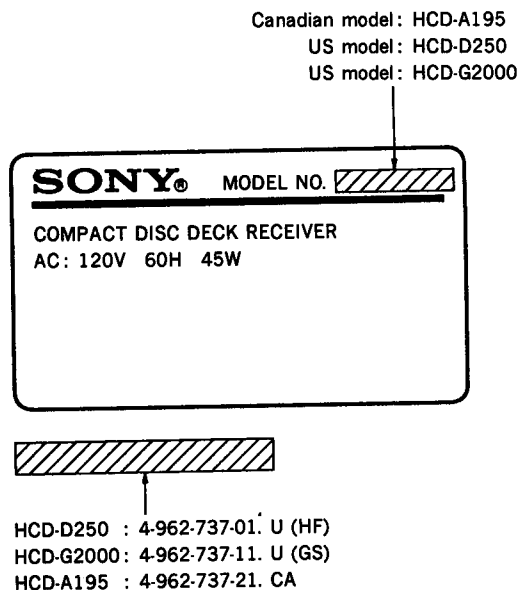
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

MODEL IDENTIFICATION

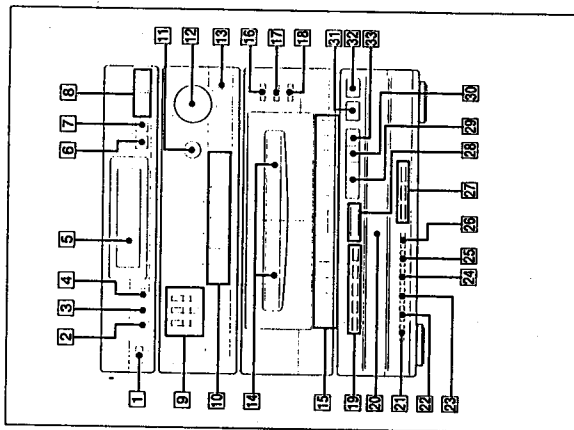
—Label Model Number—



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Location of Controls

Refer to the pages indicated in parentheses for details.



Compact Disc Deck Receiver

Tuner section

- 1 POWER switch
- 2 MEMORY button
- 3 STEREO/MONO button
- 4 TUNING/PRESET button
- 5 Display window
- 6 BAND button
- 7 SHIFT button
- 8 DUAL MODE TUNING +/- buttons

Amplifier section

- 9 3 BAND GRAPHIC EQUALIZER controls (A195/G2000)
- 10 TONE CONTROLS (D250)
- 11 Function selectors and indicators
- 12 SURROUND control
- 13 VOLUME control
- 14 HEADPHONES jack

Cassette deck section

- 15 Cassette holders
- 16 Tape operating buttons
 - ▶ (play) button, ■ / ▲ (stop/eject) button, ▶▶ (rightward fast winding) button, ◀◀ (leftward fast winding) button,
 - PAUSE button, ● REC button (only for deck B)
- 17 DOLBY NR (Noise Reduction) (ON/OFF) switch
- 18 TAPE SELECT (TYPE I/TYPE II) button
- 19 DUBBING SPEED (HIGH/NORMAL) button (A195/G2000)

Compact disc player section

- 20 DISC SELECT 1-5 button
- 21 Disc tray
- 22 TIME button
- 23 REPEAT button
- 24 MUSIC SCAN button
- 25 CHECK (program check) button
- 26 CLEAR (program clear) button
- 27 EDIT button
- 28 PLAY MODE buttons
- 29 CONTINUE button
- 30 SHUFFLE button
- 31 PROGRAM button
- 32 ◀◀ ◀▶ / ▶▶▶▶ AMS* buttons
- 33 ▶ (play) button and indicator
- 34 ■ (pause) button and indicator
- 35 DISC SKIP button
- 36 ▲ OPEN/CLOSE button
- 37 ■ (stop) button

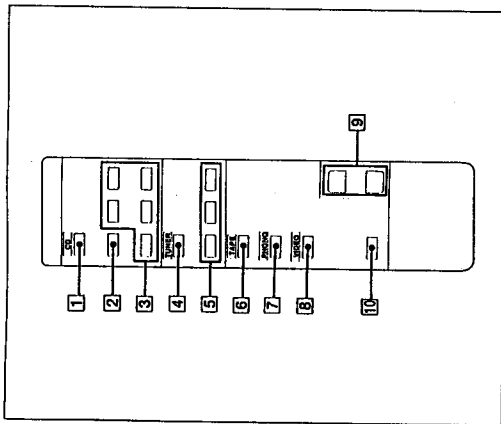
* AMS is the abbreviation of Automatic Music Sensor.

SECTION 1 GENERAL

Remote commander RM-S221

- 1 CD function button
- 2 DISC SKIP button
- 3 CD operation buttons
 - ◀◀ / ▶▶ (AMS*) buttons, ▶ (play) button, ■ PAUSE button, ■ (stop) button
- 4 TUNER function button
- 5 Tuner operation buttons
- 6 SHIFT button
- 7 PRESET +/- buttons
- 8 These buttons are used to select the preset station number.
- 9 TAPE function button
- 10 PHONO function button (operative with A195/D250)
- 11 VIDEO function button (operative with G2000)
- 12 VOL (volume) +/- buttons
- 13 This button is inoperative with this unit.

* AMS is the abbreviation of Automatic Music Sensor.

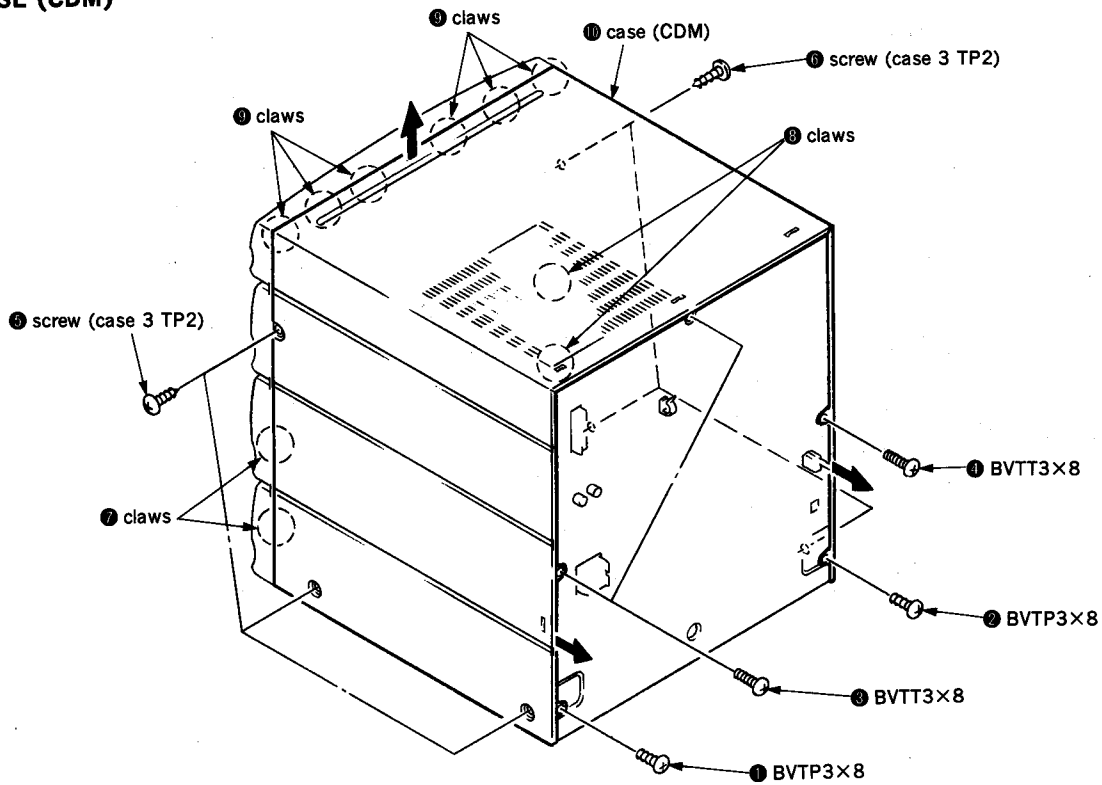


This section is extracted from instruction manual.

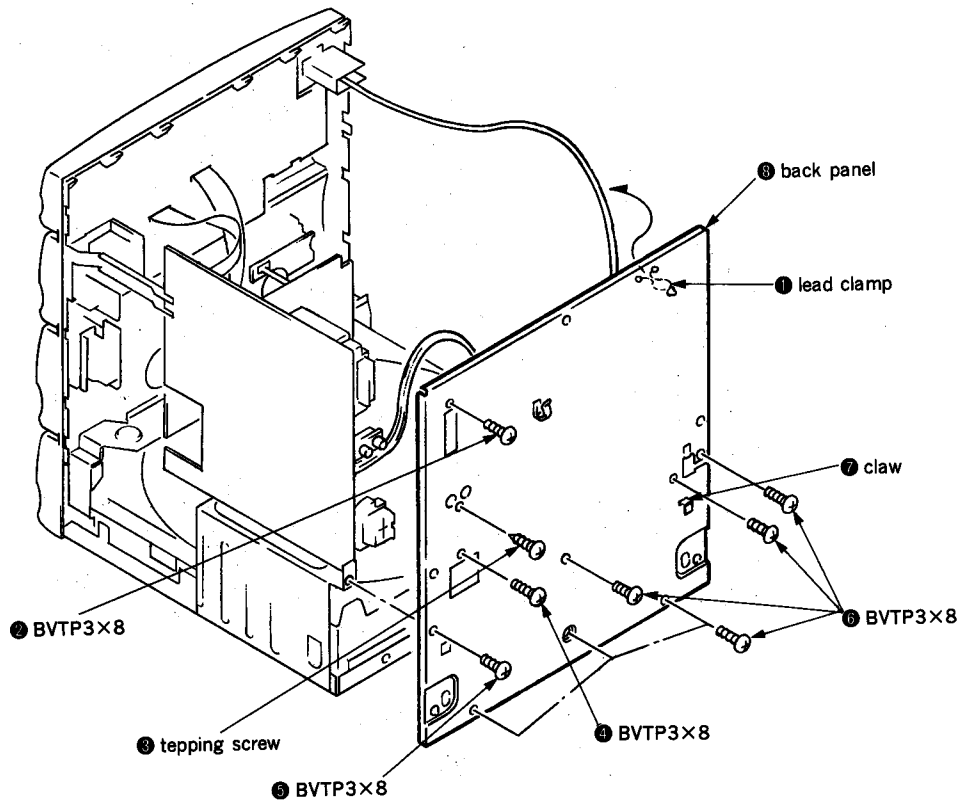
SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

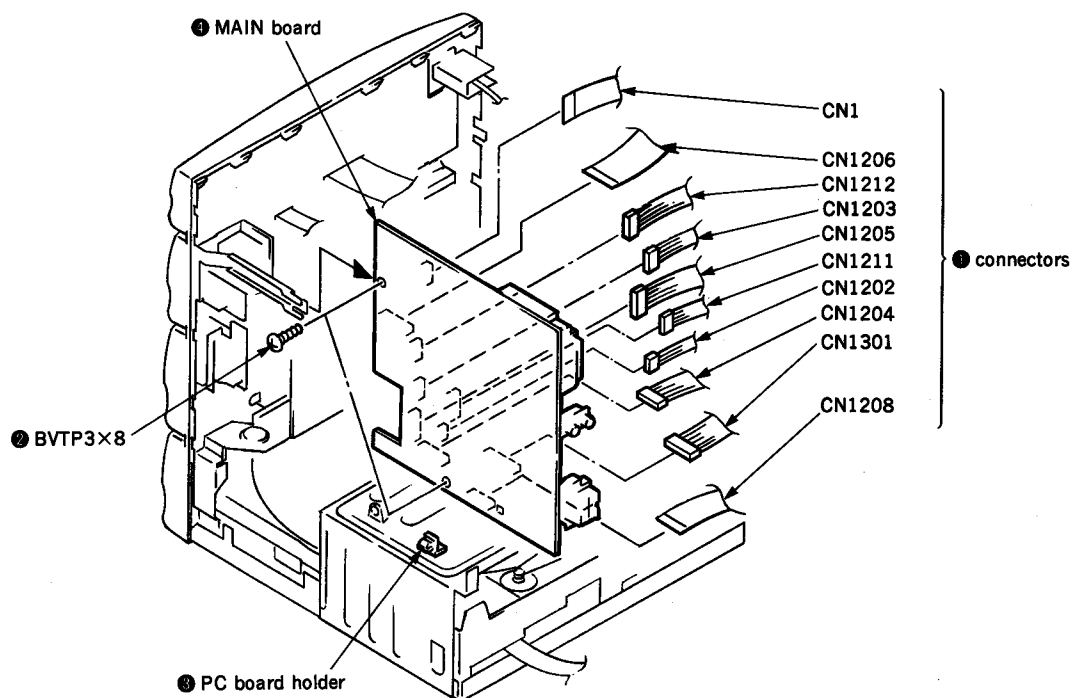
2-1. CASE (CDM)



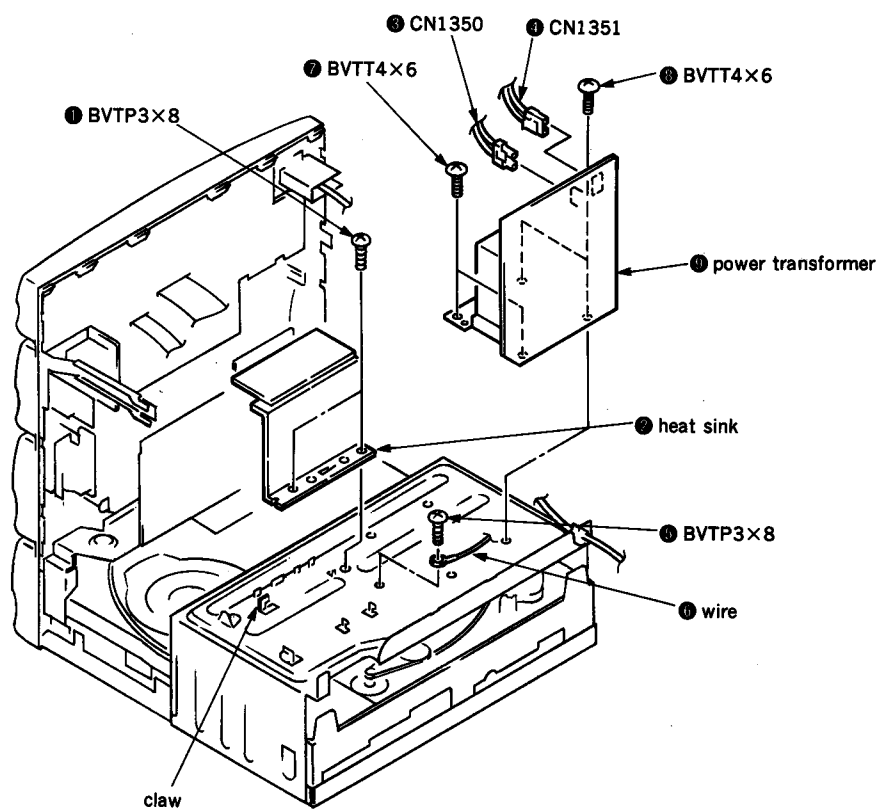
2-2. BACK PANEL



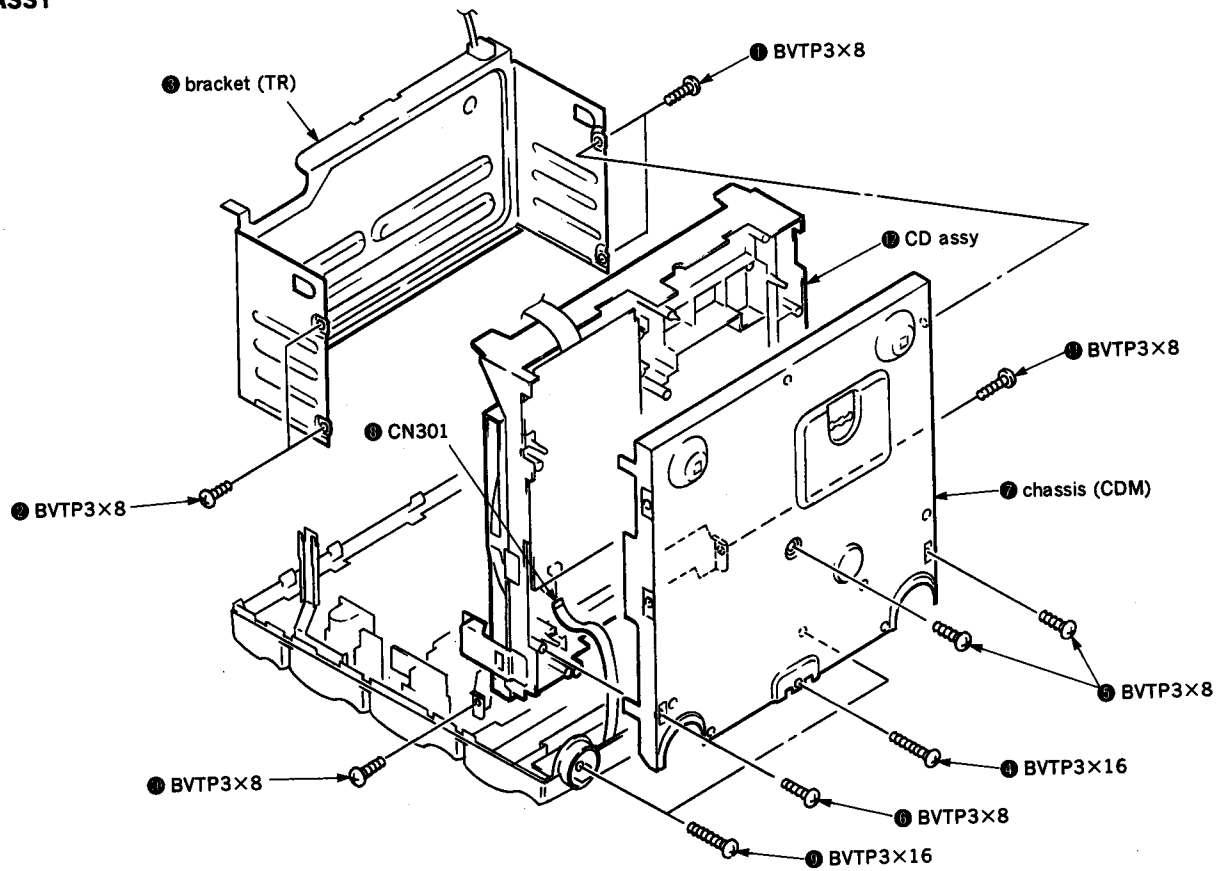
2-3. MAIN BOARD



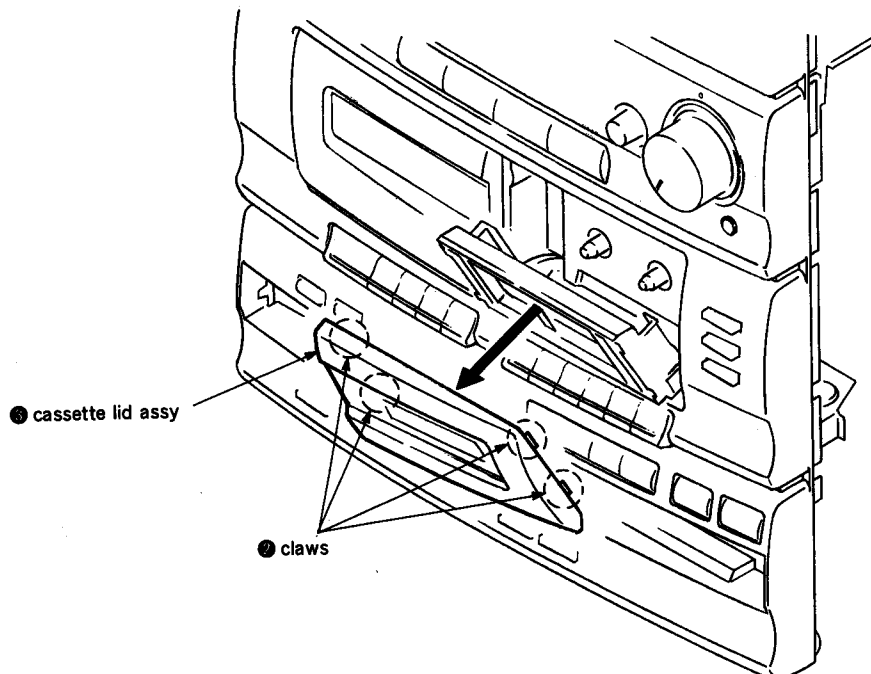
2-4. POWER TRANSFORMER



2-5. CD ASSY

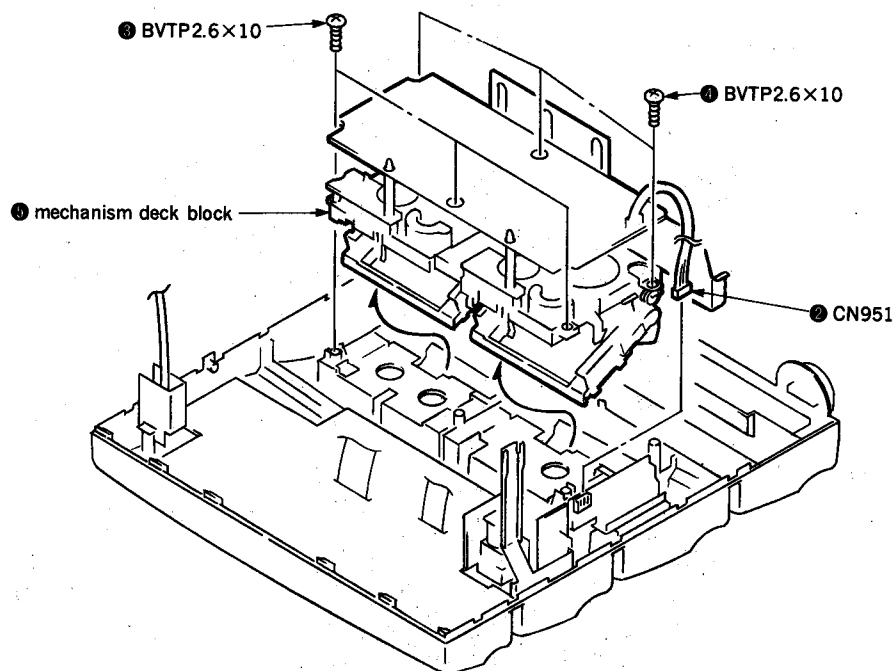


2-6. CASSETTE LID ASSY

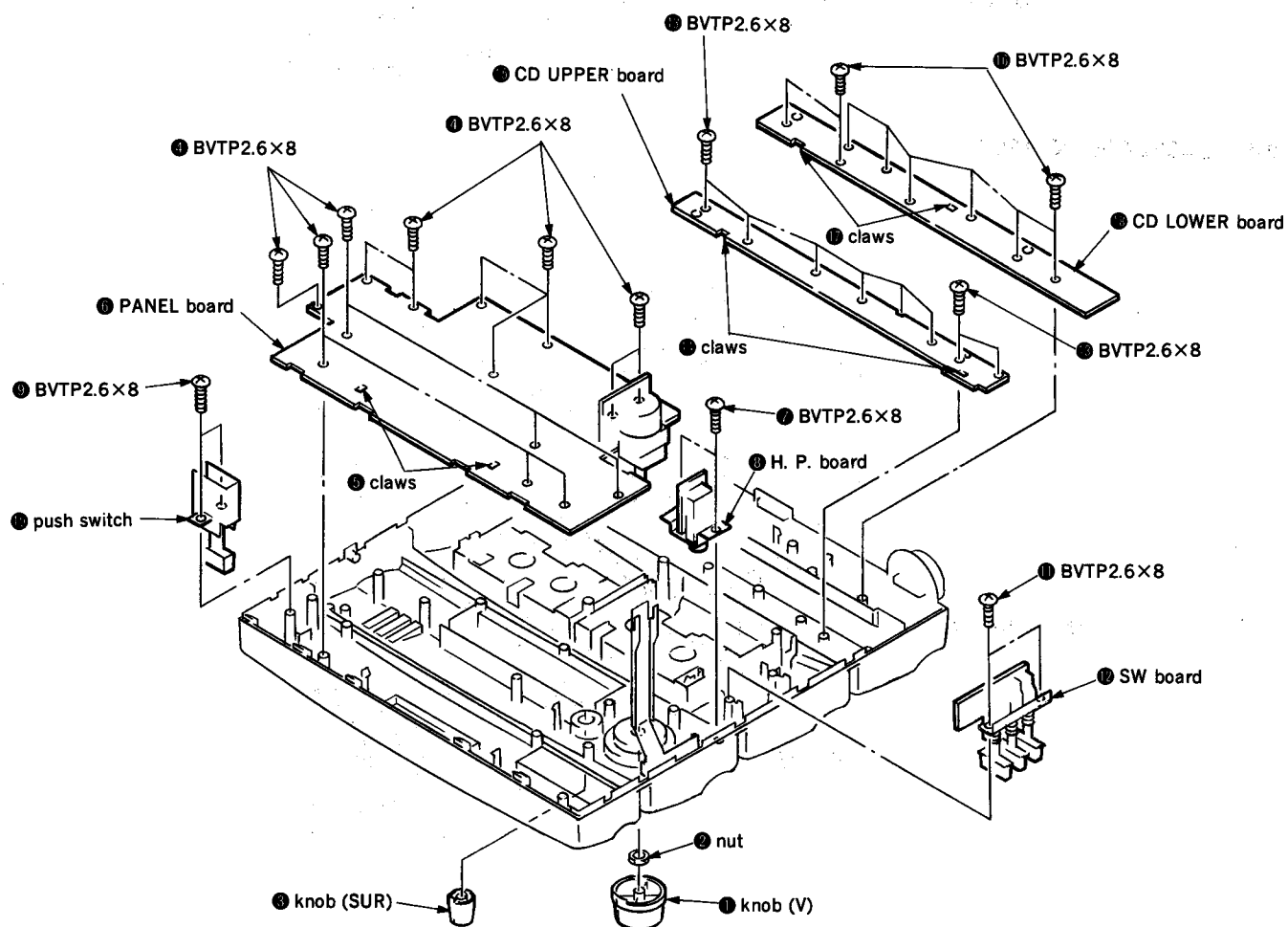


2-7. MECHANISM DECK BLOCK

① Push the EJECT button.

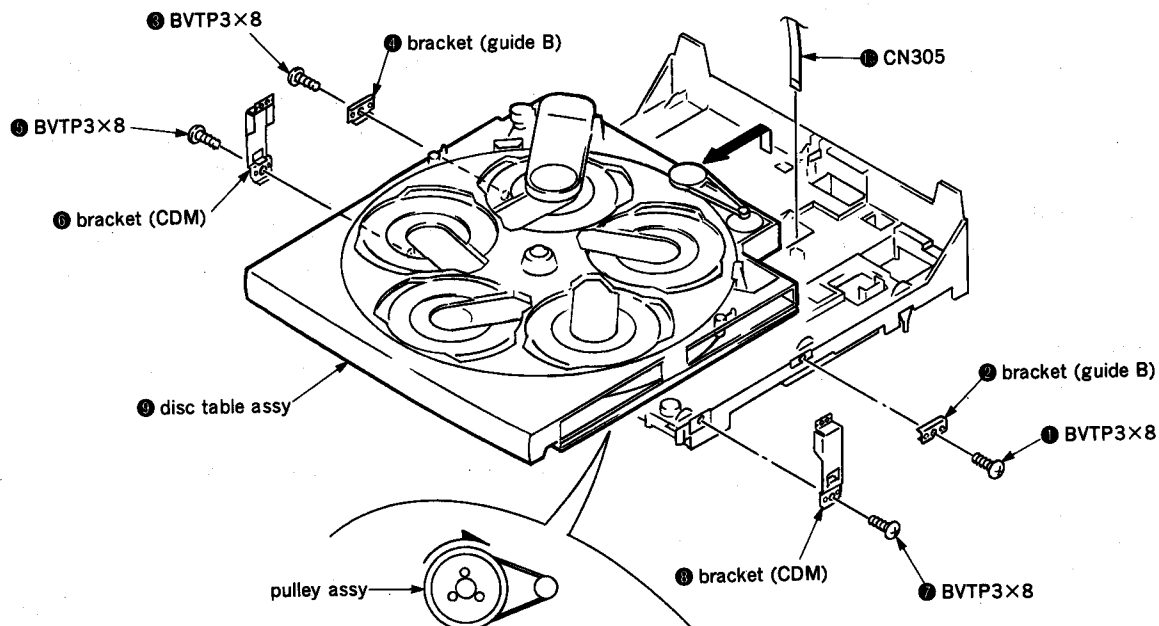


2-8. PANEL BOARD



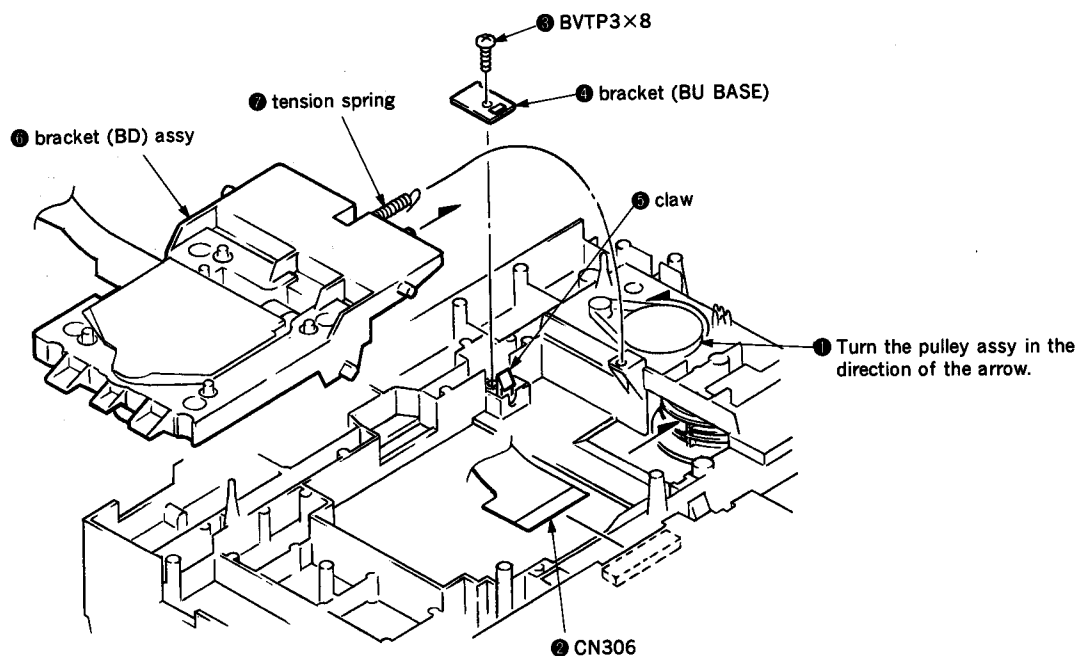
2-9. DISC TABLE ASSY

Note on assembly : Turn the pulley assy in the direction of the arrow.
Down the bracket (BD) assy, and assembly the disc table assy.



2-10. BRACKET (BD) ASSY

Note on assembly : Set to the arrow portion of gear (loading A) for shaft (CAM).



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured alcohol-moistened swab :

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30–70g•cm (0.42–0.97oz•inch)
FWD Back tension	CQ-102C	1.5–5.5g•cm (0.020–0.076oz•inch)
FF/REW	CQ-201B	63g•cm or more (0.87oz•inch or more)

SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION **0dB=0.775V**

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

TAPE SELECT switch : TYPE I

DOLBY NR switch : OFF

Type	Signal	Used for
P-4-A100	10kHz, –10dB	Azimuth Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment
P-4-L300	315Hz, 0dB	Level Adjustment

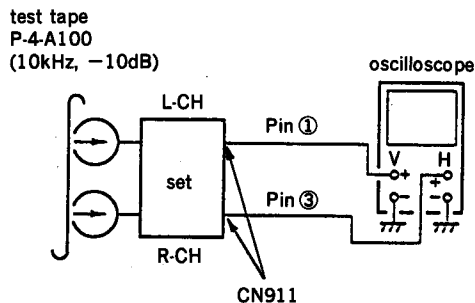
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

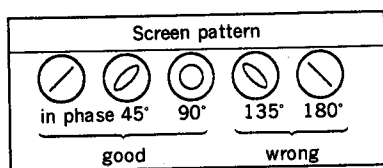
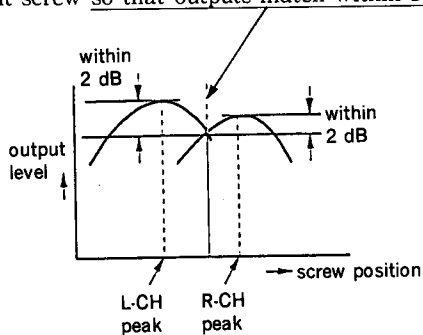
Note : Perform this adjustments for both decks.

Procedure :

1. Mode : Playback

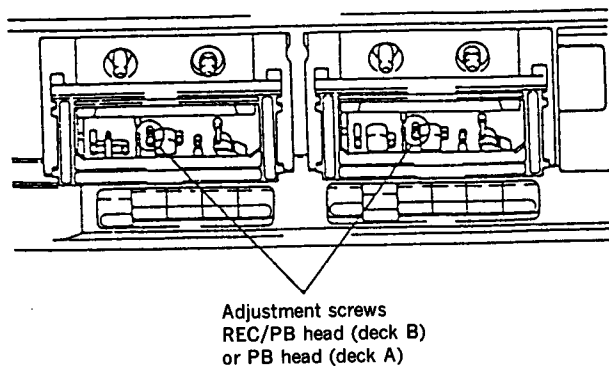


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 2 dB of peak.



- After the adjustments, apply suitable locking compound to the parts adjusted.

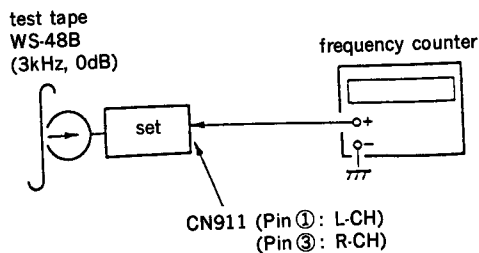
Adjustment Location :



Tape Speed Adjustment DECK A DECK B

Procedure :

Mode : Playback



High speed adjustment (HCD-A195/G2000 only) (Must be first Adjustment deck B)

- Short pin CN912 on set "DUBBING SPEED" switch to "HIGH". Then at HIGH speed mode.
- Adjust RV901 so that the frequency counter reads $6,000 \pm 20\text{Hz}$.

Normal speed adjustment

- Remove the short pin from CN912 on set "DUBBING SPEED" switch to "NORMAL". Then at NORMAL speed mode.
- Adjust RV902 so that the frequency counter reads $3,000 \pm 10\text{Hz}$.

Frequency difference between deck A and deck B the beginning of the tape should be within $\pm 1\%$.

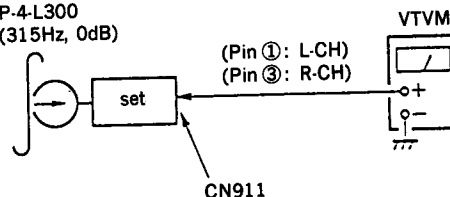
Adjustment Location : main TC board

Playback Level Adjustment DECK A DECK B

Procedure :

Mode : Playback

test tape
P-4-L300
(315Hz, 0dB)



Deck A side RV701 (L-CH), RV801 (R-CH)

Deck B side RV702 (L-CH), RV802 (R-CH)

so that the limits below are satisfied.

Adjustable limits :

CN911 PB level: 366.7 to 411.4mV (-6.5 to -5.5dB)

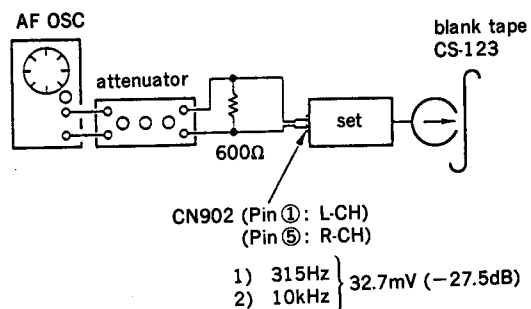
level difference between the channels: within $\pm 1\text{dB}$

Adjustment Location : main TC board

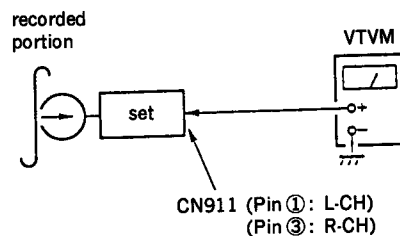
Record Bias Current Adjustment DECK B

Procedure :

- Mode : record



- Mode : Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV704 (L-CH) and RV804 (R-CH) to repeat step 1 and 2.

Adjustable limits : Playback output of 315Hz to playback output of 10kHz : $0 \pm 0.5\text{dB}$

Adjustment Location : main TC board

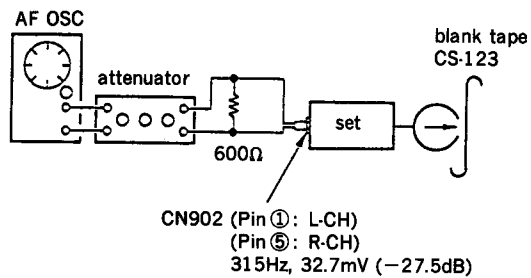
Record Level Adjustment **DECK B**

Setting :

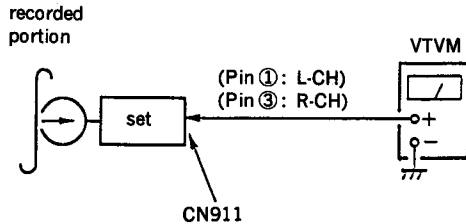
TAPE SELECT switch : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

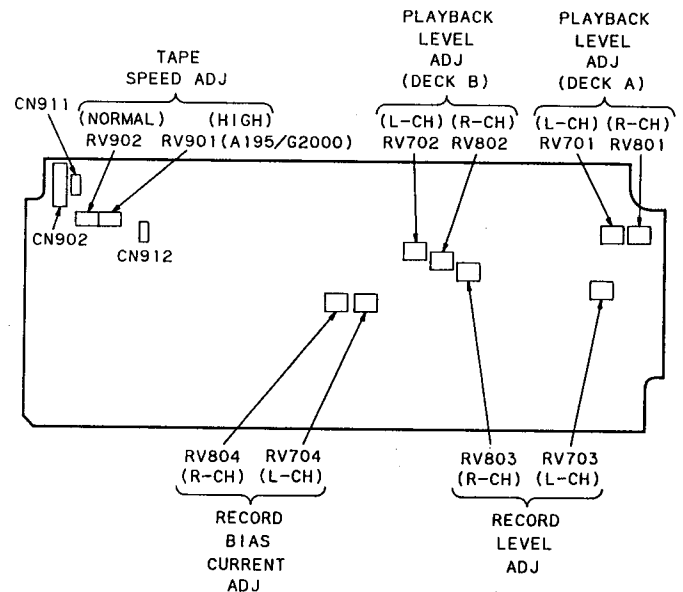
If these levels do not adjustable limits, adjustment the RV703 (L-CH) and RV803 (R-CH) to repeat step 1 and 2.

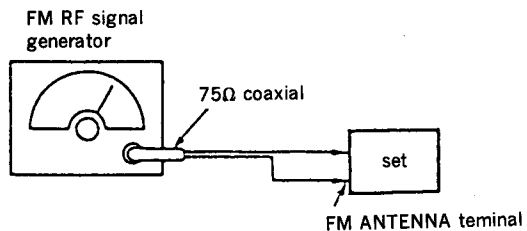
Adjustable limits :

CN911 PB level : 30.9 to 34.6mV (-28 to -27dB)

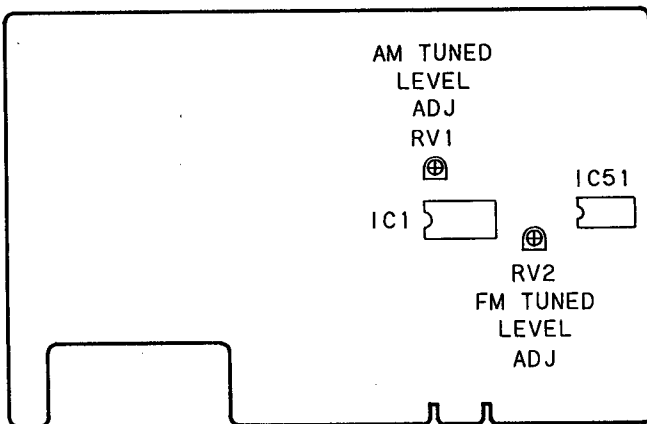
Adjustment Location : main TC board

Adjustment Location : main TC board (component side)

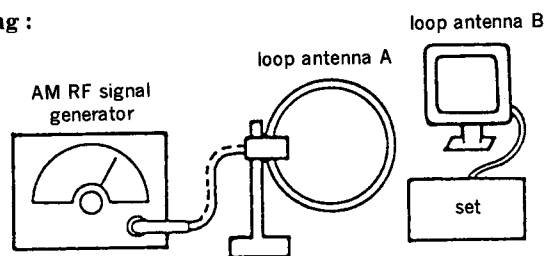


TUNER SECTION**0dB=1 μ V****Adjustment Location :** main board (component side)**• FM SECTION****Setting :**

Carrier frequency: 98MHz
 Modulation: 1kHz, 75kHz deviation

**FM Tuned Level Adjustment****Band :** FM**Procedure :**

1. Supply a 17.8 μ V (25dB μ) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location : main board**• AM SECTION****Setting :**

30% amplitude
 modulation by 400Hz signal

AM Tuned Level Adjustment**Band :** AM**Procedure :**

1. Set loop antenna A so that the loop antenna B input level becomes 0.56mV (55dB μ).
2. Tune the set to 1,050kHz.
3. Adjust RV1 so that the TUNED indicator goes on.

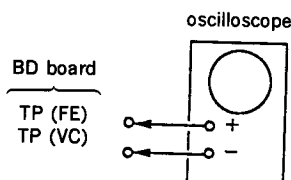
Adjustment Location : main board

CD SECTION

Note :

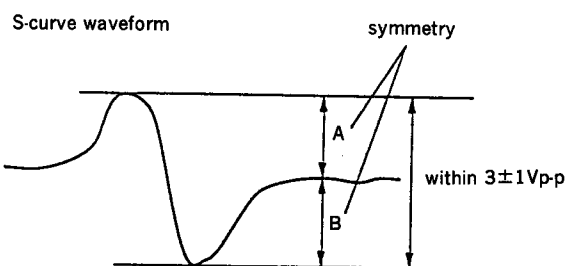
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10M Ω impedance.
4. Clean an objective lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



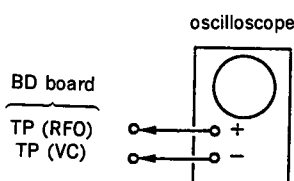
Procedure :

1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in the turned Power switch on again and actuate the focus search. (Actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.



6. After check, remove the lead wire connected in step 2.
- Note :**
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

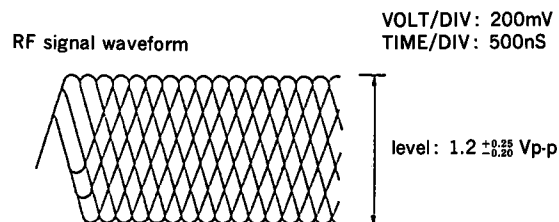
RF Level Check



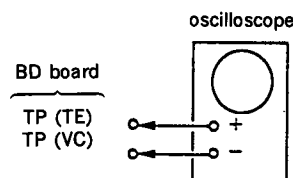
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note : Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

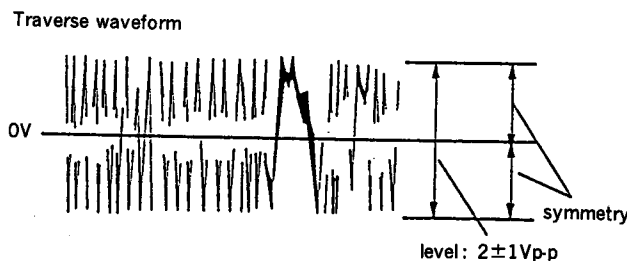


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned Power switch on.
4. Put disc (YEDS-18) is and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

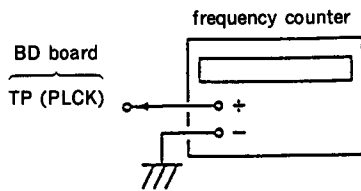


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.

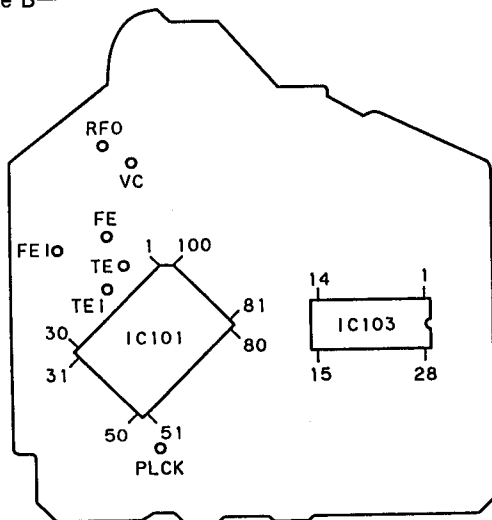


2. Turned Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Adjustment Location :

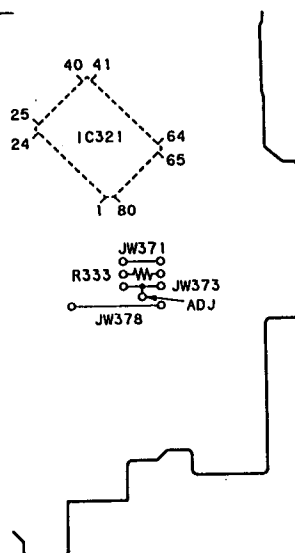
[BD BOARD]

—Side B—



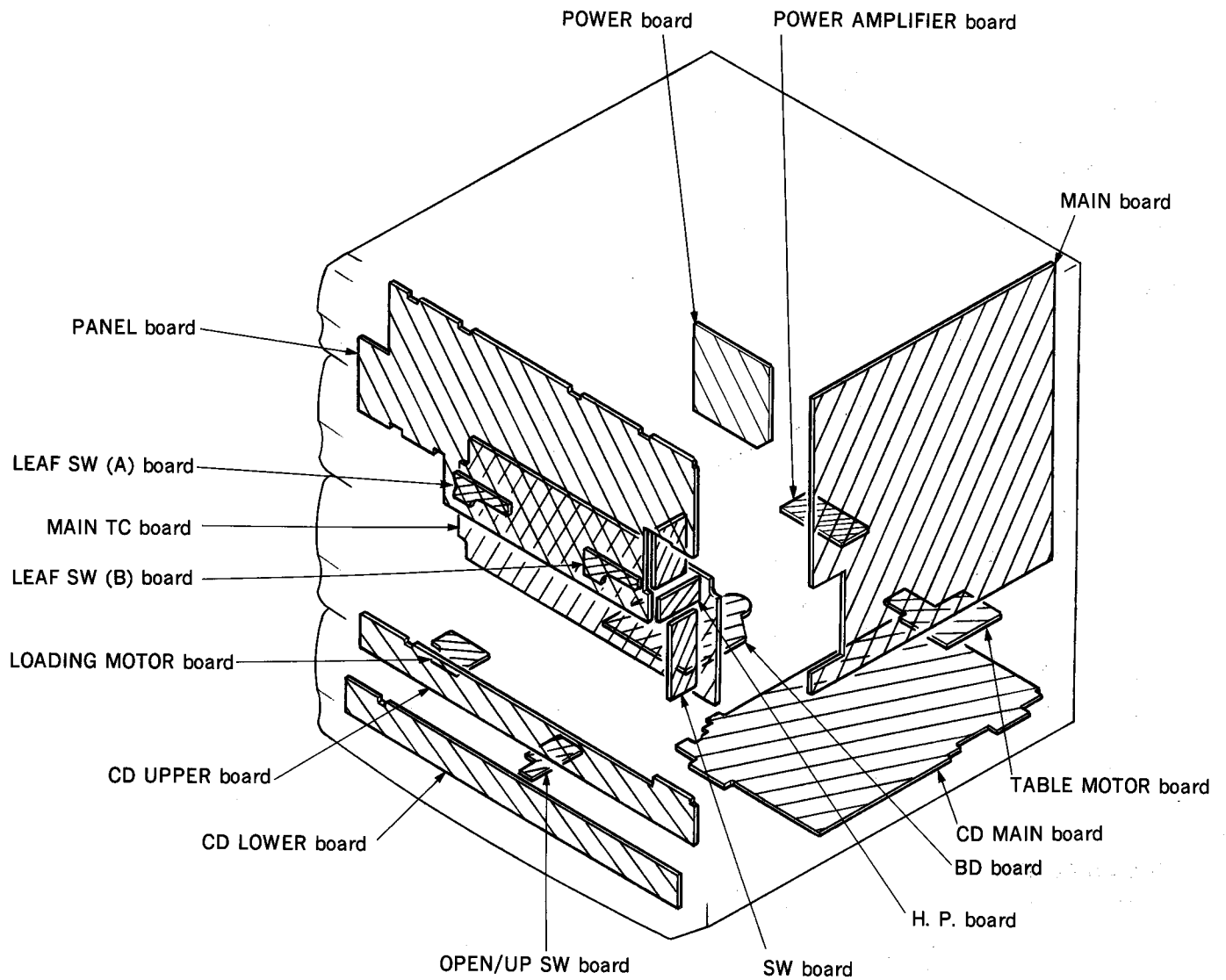
[CD MAIN BOARD]

—Component side—

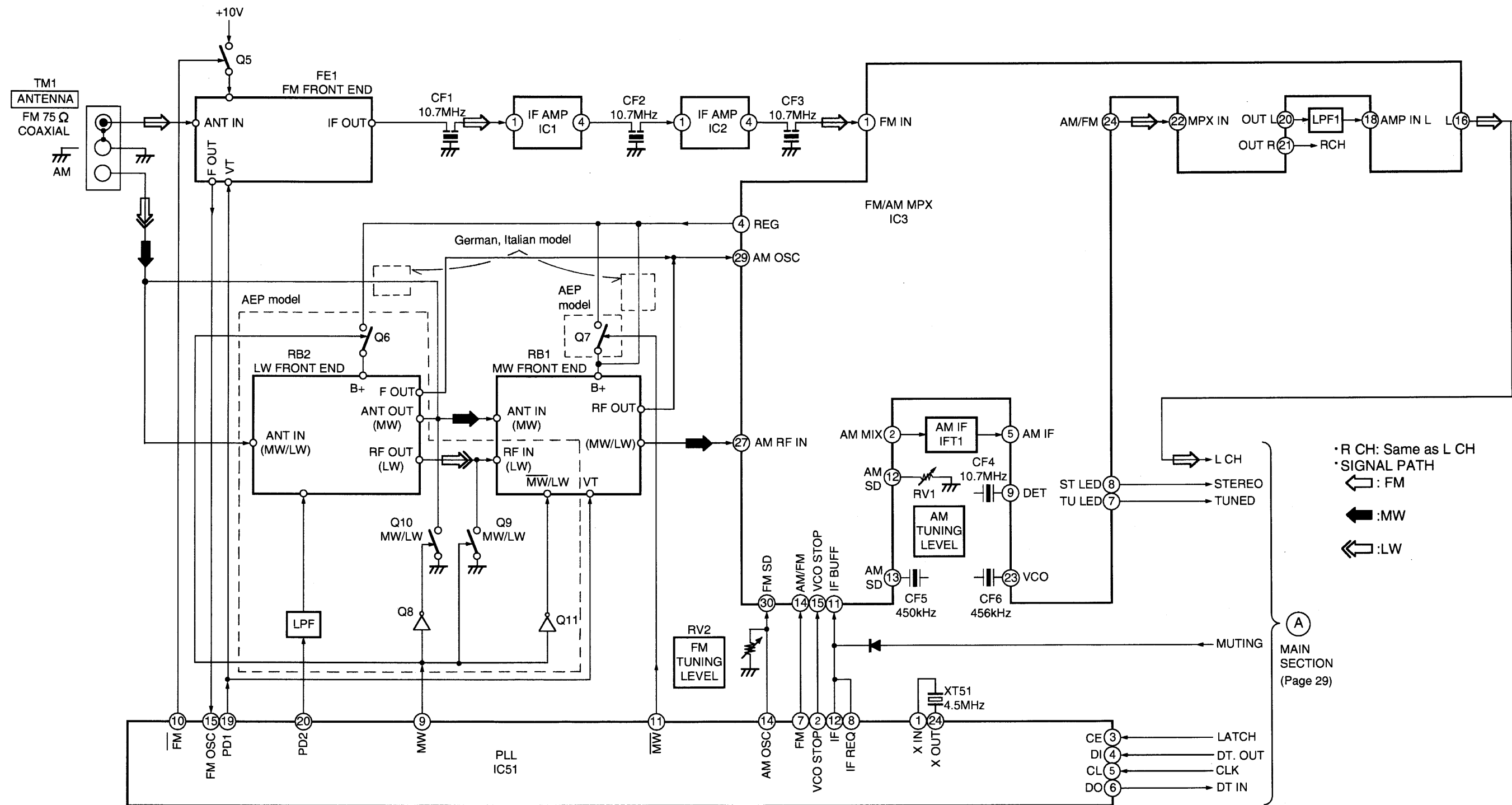


SECTION 5 DIAGRAM

5-1. CIRCUIT BOARDS LOCATION

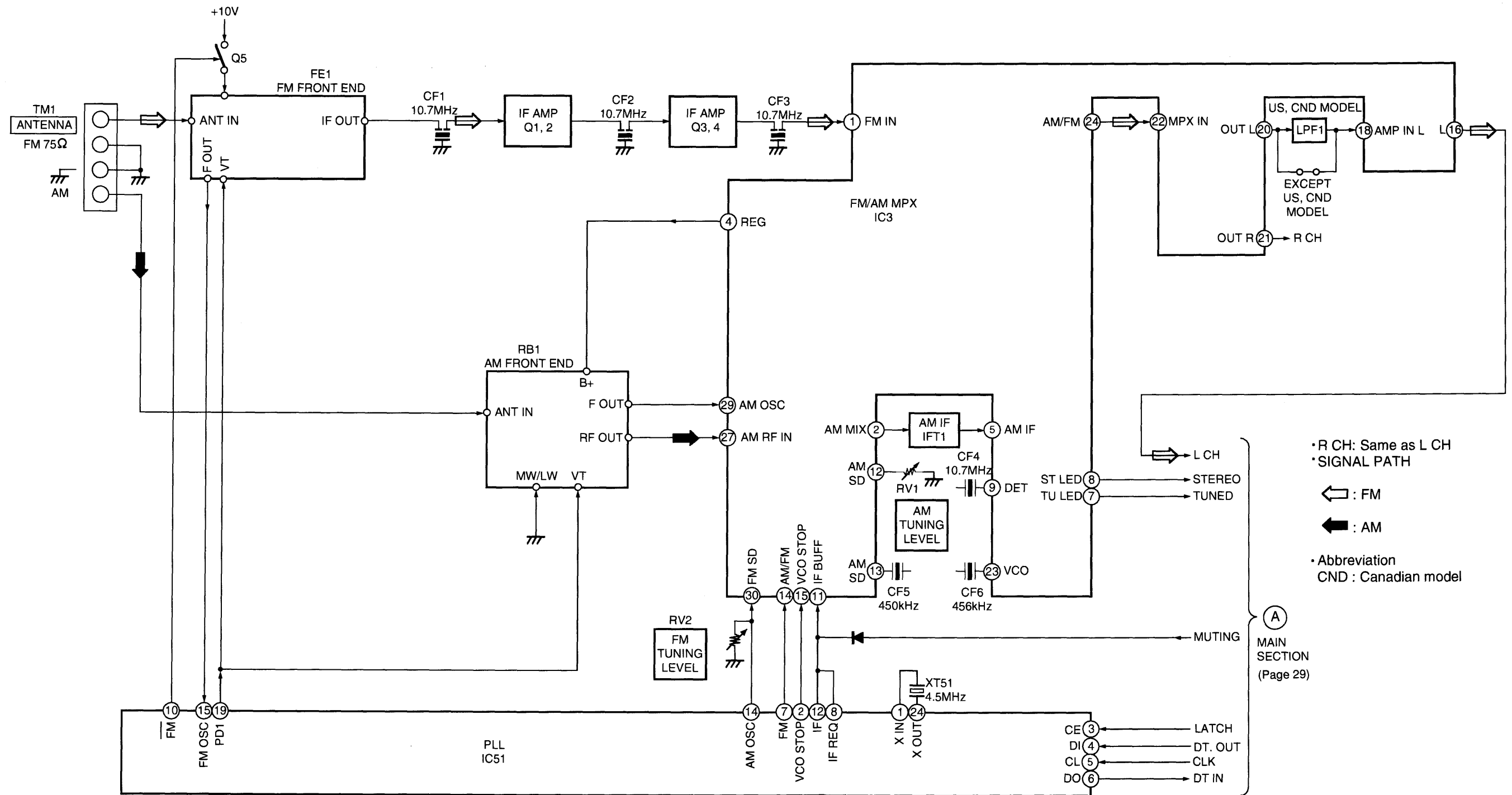


6-3. BLOCK DIAGRAM
— TUNER SECTION (AEP, German, Italian model) —

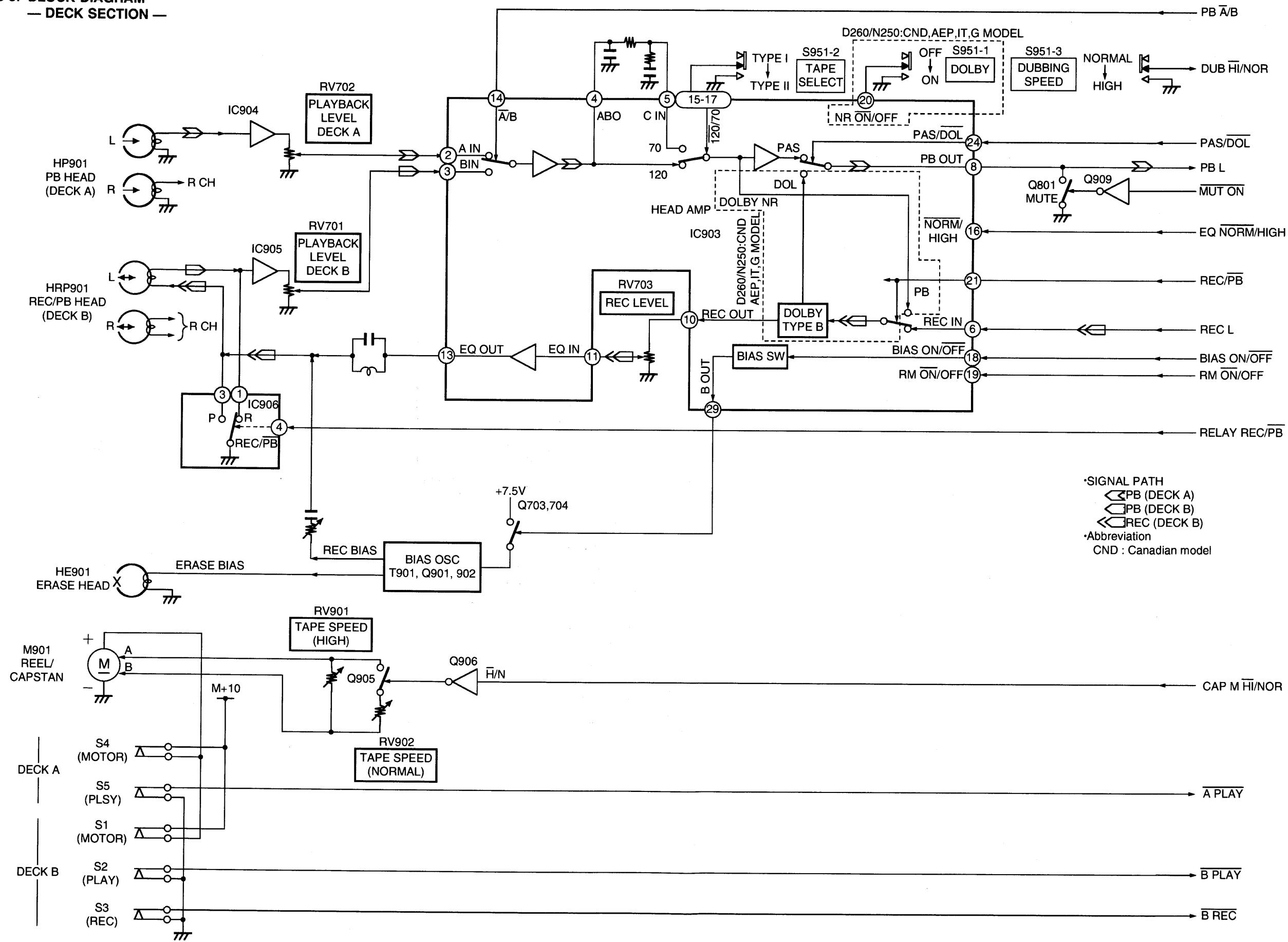


6-4. BLOCK DIAGRAM

— TUNER SECTION (EXCEPT AEP, German, Italian model) —

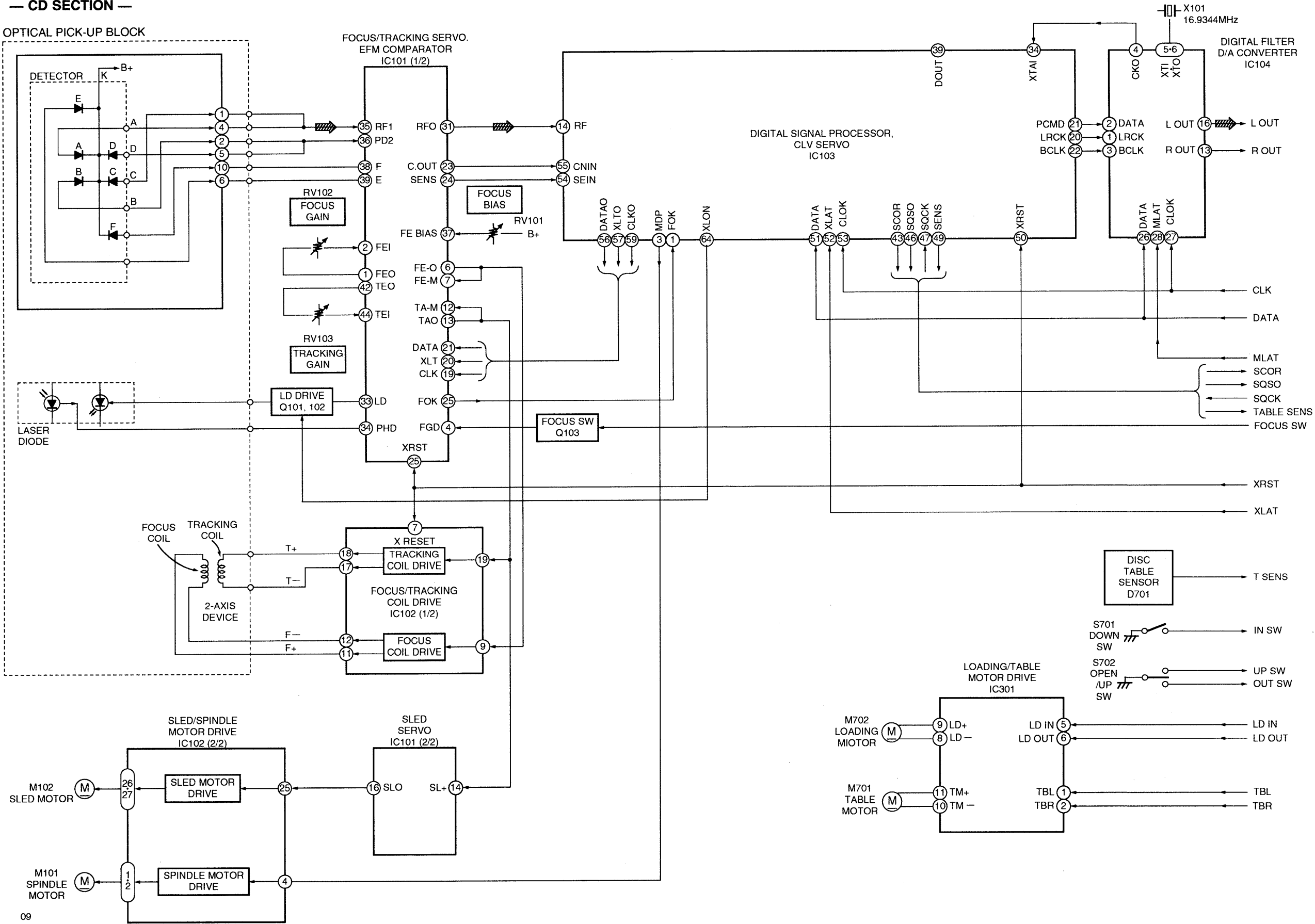


6-5. BLOCK DIAGRAM
— DECK SECTION —

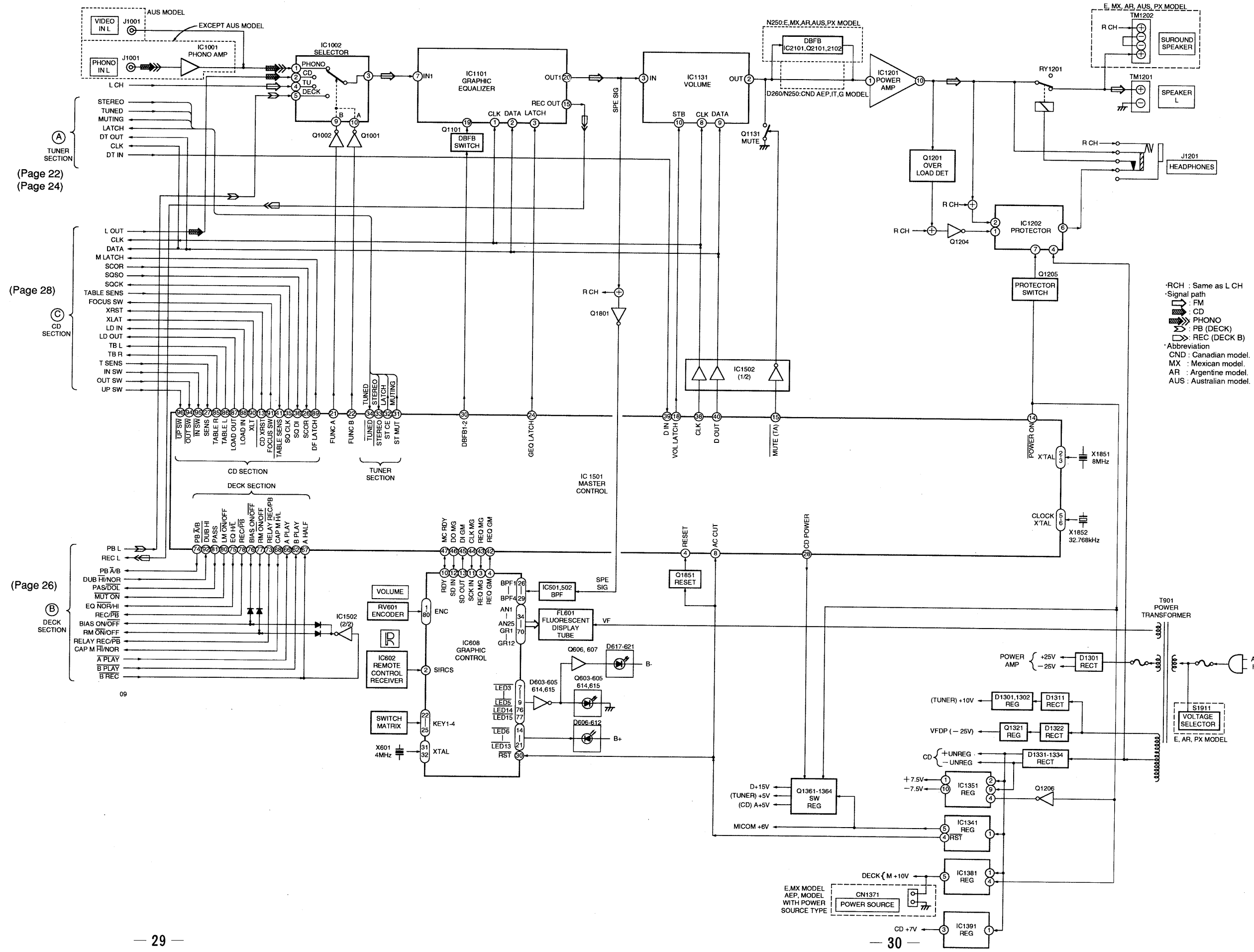


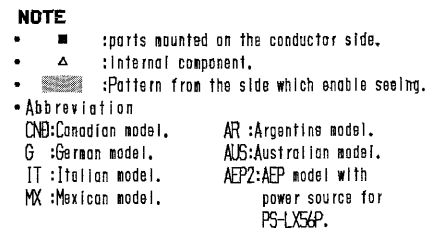
ⓑ MAIN
SECTION
(Page 29)

6-6. BLOCK DIAGRAM
— CD SECTION —



6-7. BLOCK DIAGRAM — MAIN SECTION —

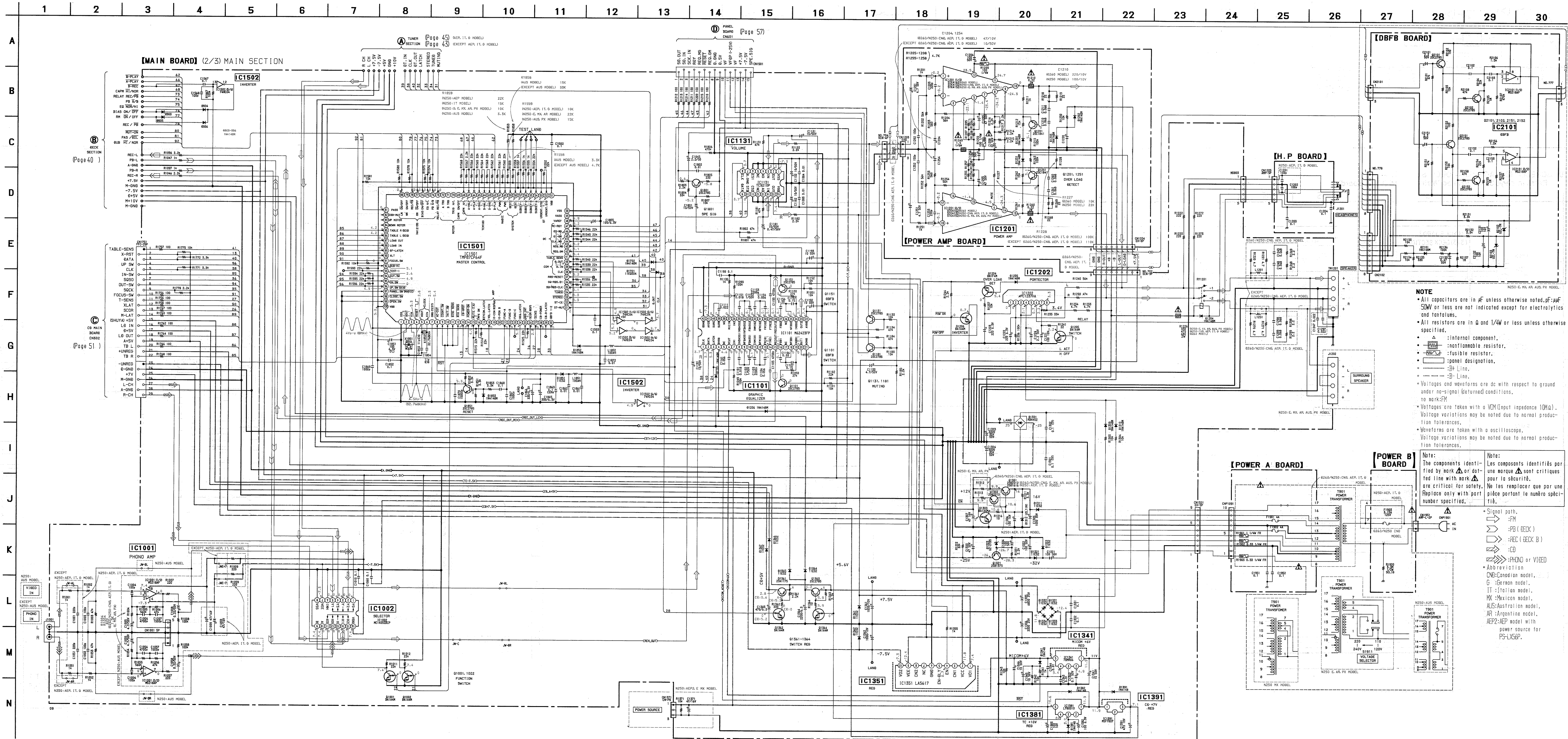




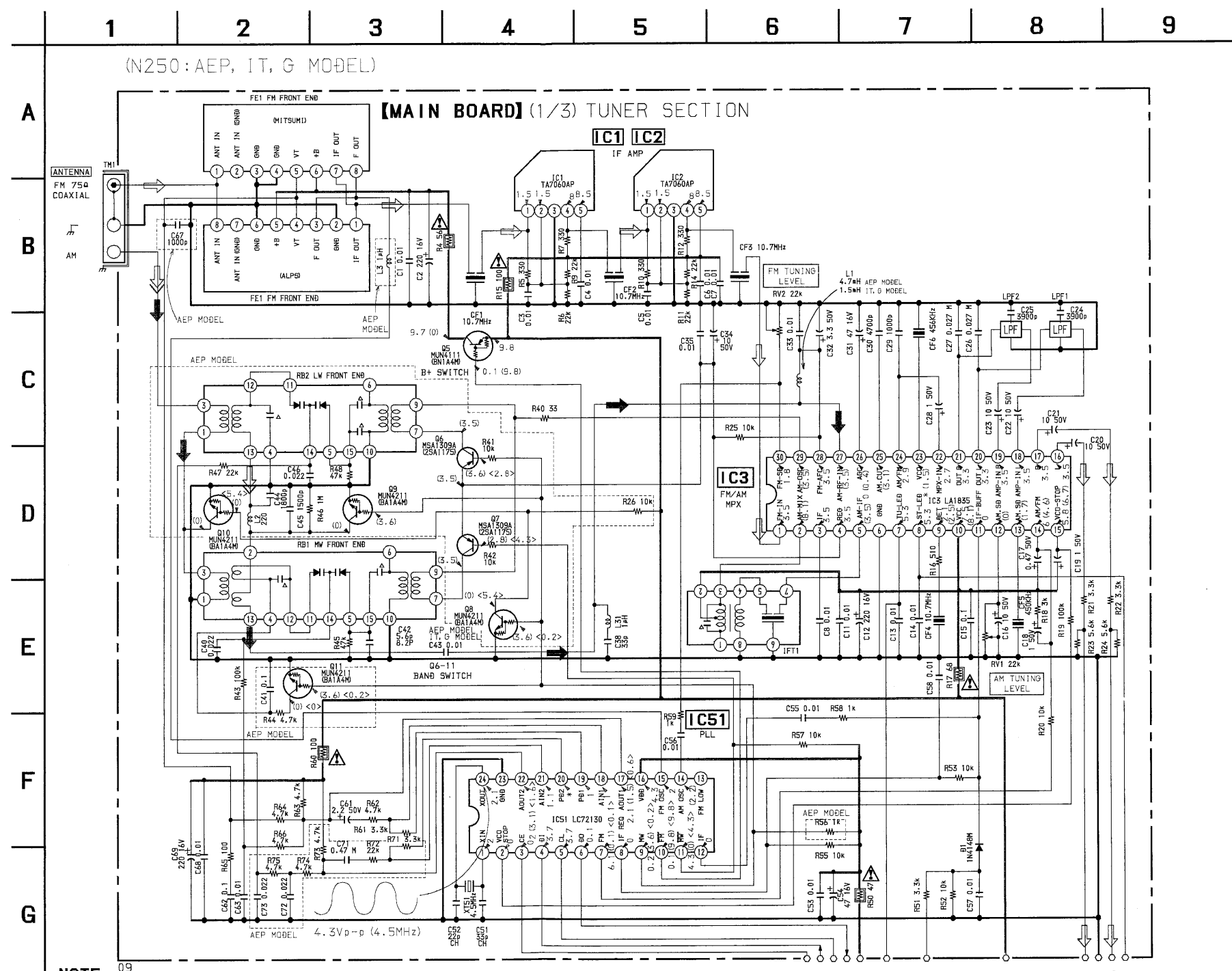
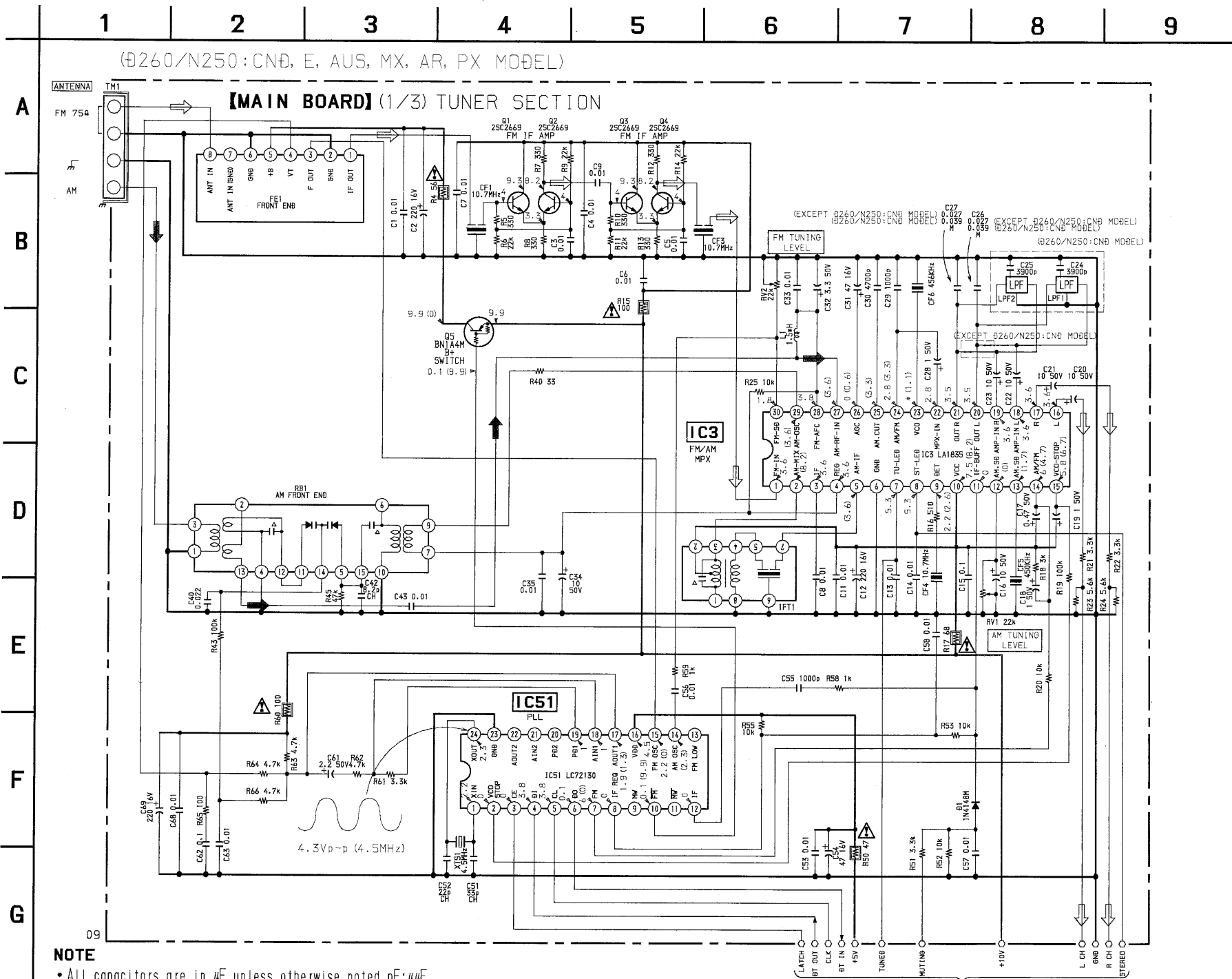
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D901	B-10	IC1202	L-3
D902	D-11	IC1341	F-4
D903	A-6	IC1351	G-4
D904	B-8	IC1381	H-5
D905	A-6	IC1391	H-4
D906	B-8	IC1501	C-6
D1101	F-12	IC1502	D-5
D1201	C-20	IC2102	D-27
D1202	A-23		
D1203	B-23	Q1	G-17
D1204	K-4	Q2	G-17
D1205	J-4	Q3	G-16
D1206	F-3	Q4	G-16
D1251	C-22	Q5	I-16
D1301	I-8	Q6	J-13
D1309	I-8	Q7	J-14
D1310	I-7	Q8	L-13
D1311	K-10	Q9	L-14
D1312	K-10	Q10	L-13
D1321	L-9	Q11	L-13
D1322	K-9	Q701	E-17
D1331	I-8	Q801	E-16
D1332	I-8	Q901	A-10
D1333	I-8	Q902	C-10
D1334	I-8	Q903	B-11
D1341	F-5	Q904	C-11
D1361	E-5	Q905	C-9
D1362	F-5	Q906	C-9
D1364	D-9	Q909	E-15
D1366	E-3	Q1001	H-9
D1367	E-2	Q1002	H-9
D1382	H-3	Q1101	F-10
D1391	H-4	Q1131	G-7
D1701	D-6	Q1151	G-10
D1702	D-7	Q1181	G-7
D1851	C-4	Q1201	C-19
D1852	C-4	Q1204	L-2
D1853	C-4	Q1205	L-3
D2101	B-26	Q1206	L-4
D2102	C-27	Q1251	C-23
D2103	C-27	Q1301	J-10
		Q1302	K-10
IC1	H-17	Q1303	K-10
IC2	H-16	Q1321	K-9
IC3	H-14	Q1361	E-3
IC51	J-15	Q1362	D-3
IC903	C-16	Q1363	E-5
IC904	D-14	Q1364	D-3
IC905	B-13	Q1801	H-8
IC906	C-12	Q1851	C-4
IC1001	K-12	Q2101	D-28
IC1002	H-11	Q2102	C-28
IC1101	F-11	Q2151	D-26
IC1131	F-8	Q2152	C-26
IC1201	D-21		

6-9. SCHEMATIC DIAGRAM — MAIN SECTION —
 • See page 62 for IC Block Diagrams. (IC1002, 1101, 1131, 1202, 1351, 1901)
 • See page 18 for IC Pin Functions. (IC1501)

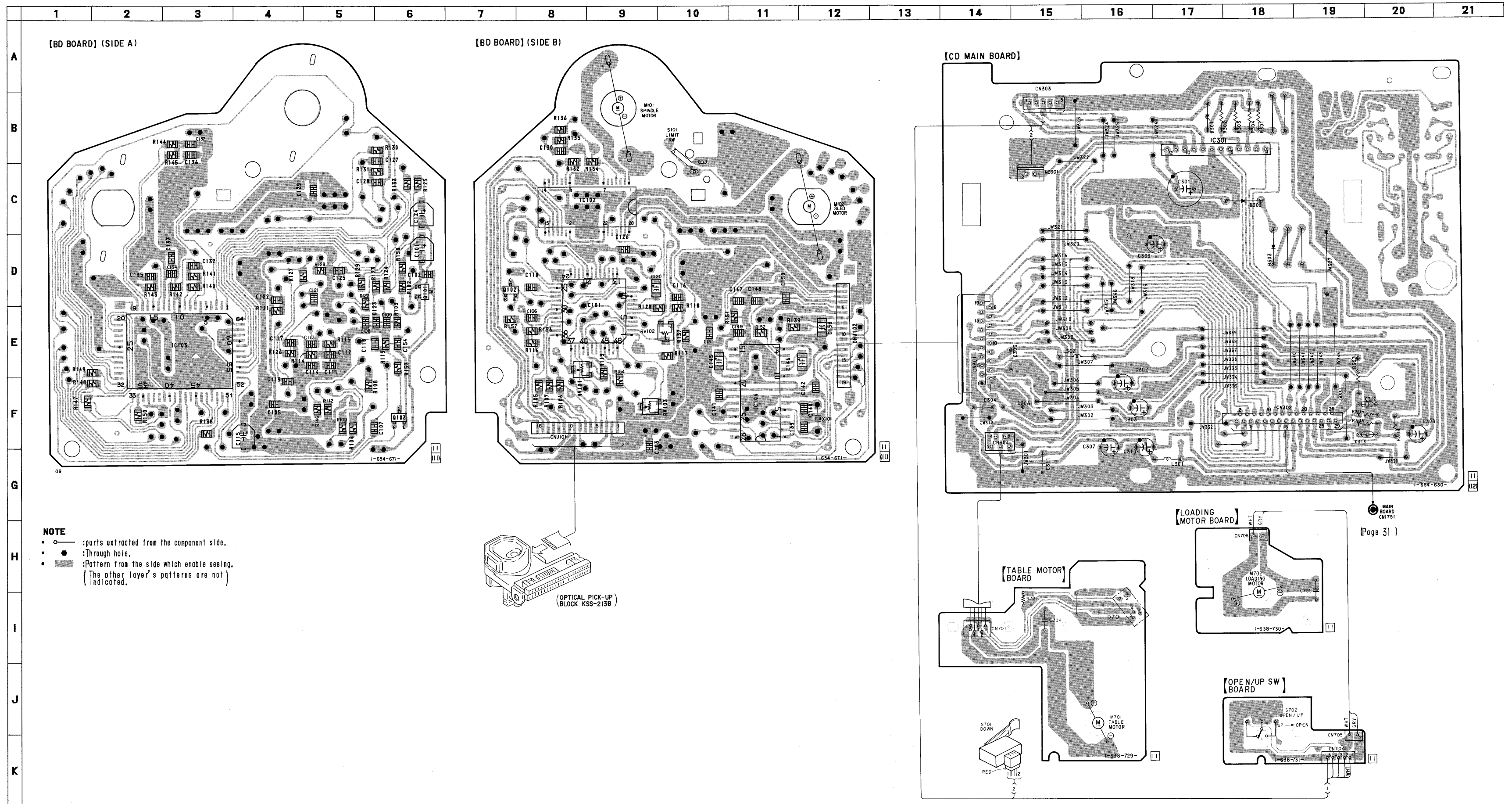


6-12. SCHEMATIC DIAGRAM — TUNER SECTION —
• Refer to page 31 for Printed Wiring Board (Main Board).
• See page 42 for IC Block Diagrams. (IC1,2, 3, 51)



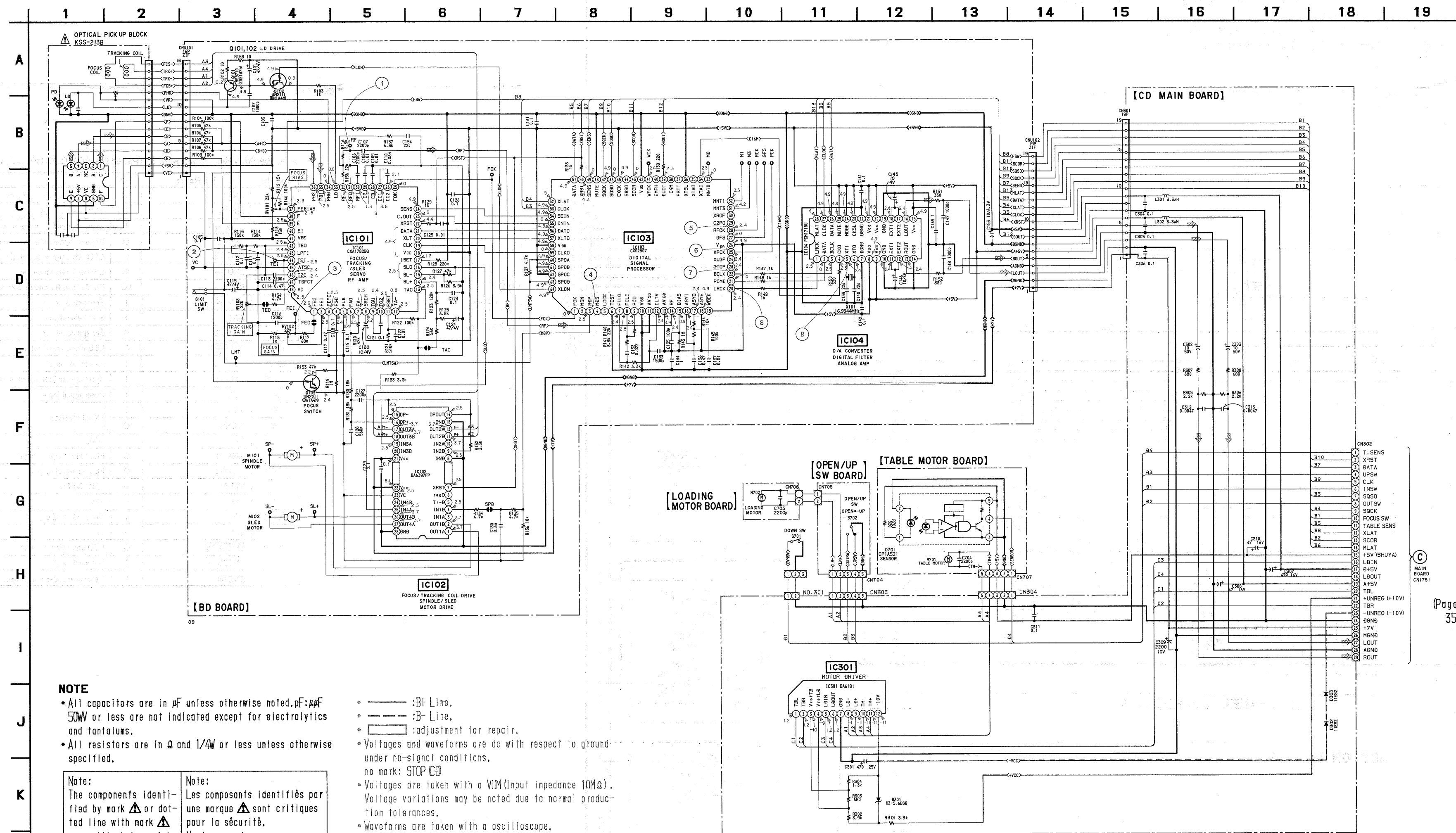
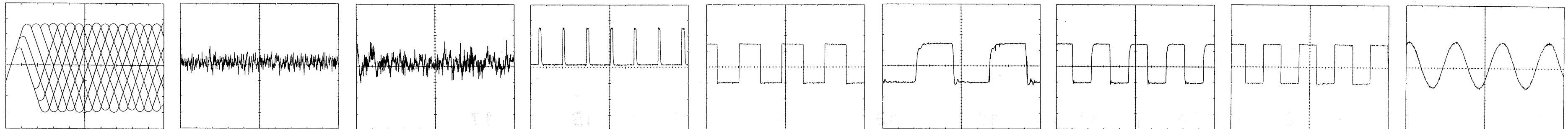
- **Semiconductor Location**

Ref. No.	Location
D301	B-17
D302	C-18
D303	D-18
D701	I-16
IC101	D-9
IC102	C-8
IC103	E-3
IC104	F-11
IC301	B-17
Q101	D-6
Q102	D-7
Q103	F-6



• Waveforms.

- ① IC101 ① 1.4Vp-p ② IC101 ④ 8mVp-p 0.2ms/DIV ③ IC101 ② 20mVp-p 2ms/DIV ④ IC103 ③ 2.4Vp-p 7.5μsec ⑤ IC103 ② 5.1Vp-p 137μsec ⑥ IC103 ② 5.1Vp-p 232.7μsec ⑦ IC103 ② 5.1Vp-p 472.7μsec ⑧ IC103 ② 5.1Vp-p 23μsec ⑨ IC104 ⑤ 3Vp-p 16.9344MHz



NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} \times 10^{-6}$ or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4W$ or less unless otherwise specified.

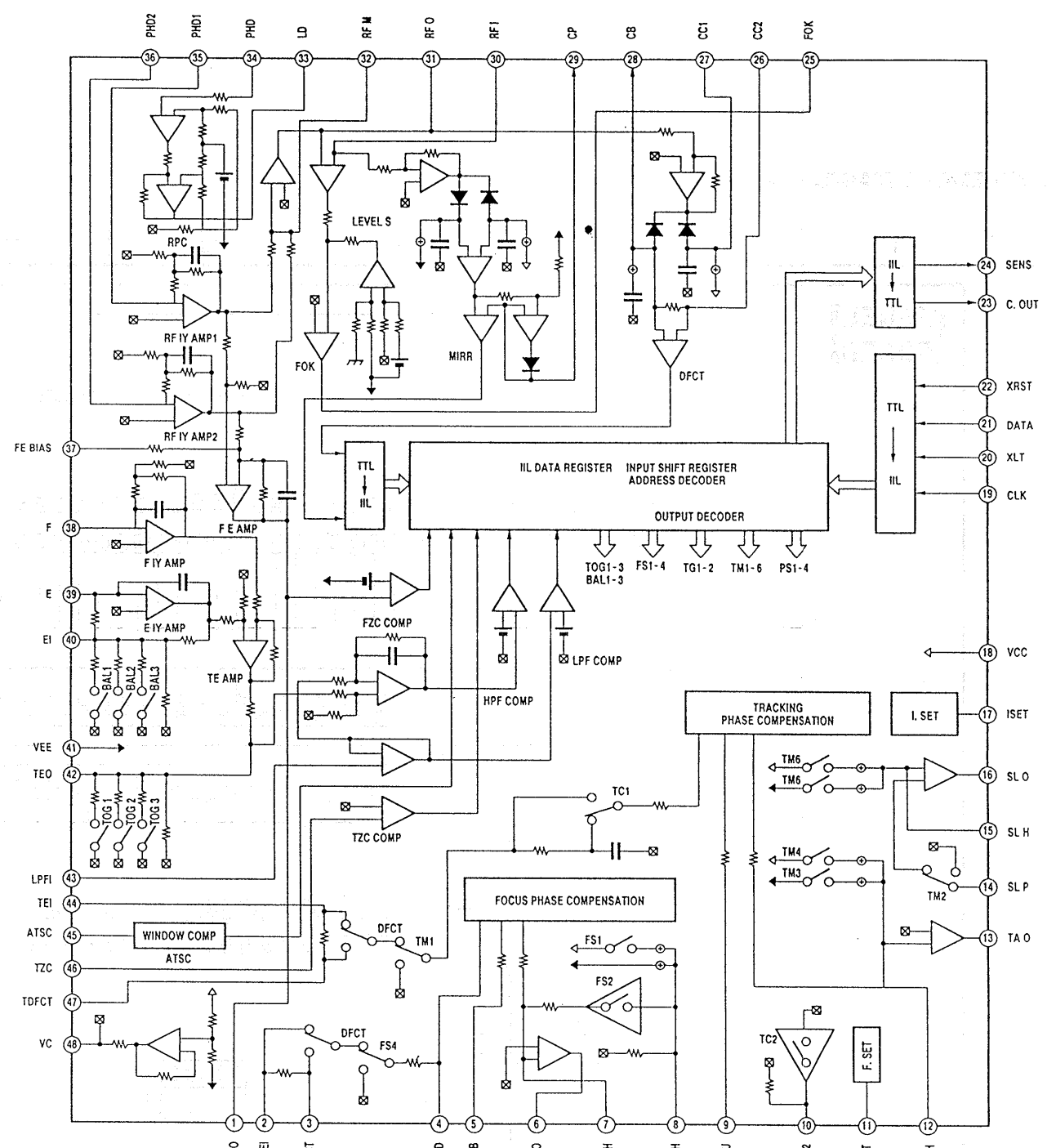
Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

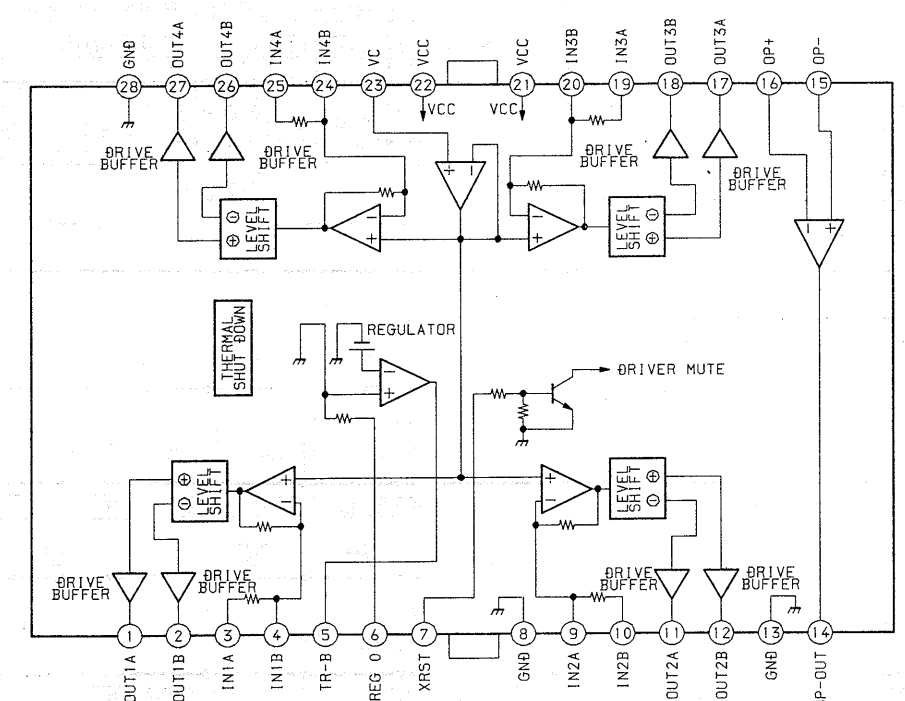
- :B+ Line.
- - -:B- Line.
- :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark: STOP CD
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

• IC Block Diagrams.

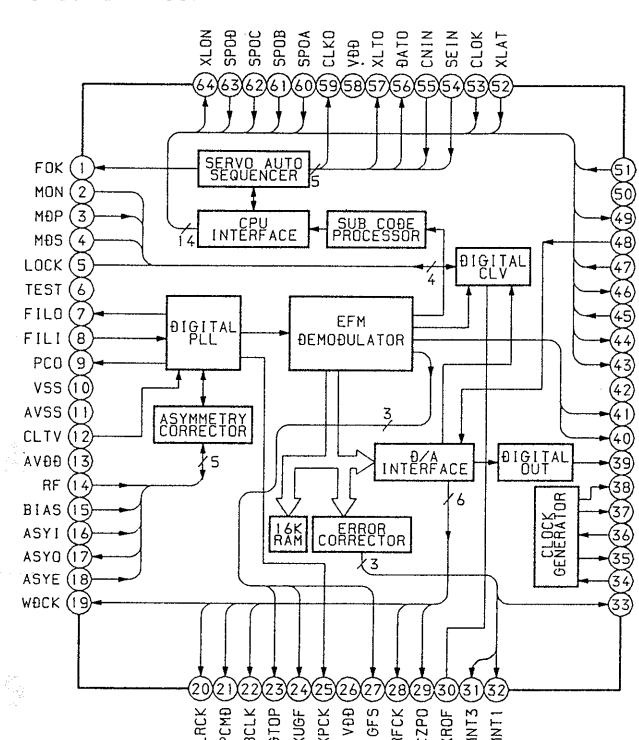
IC101 CX1782BQ



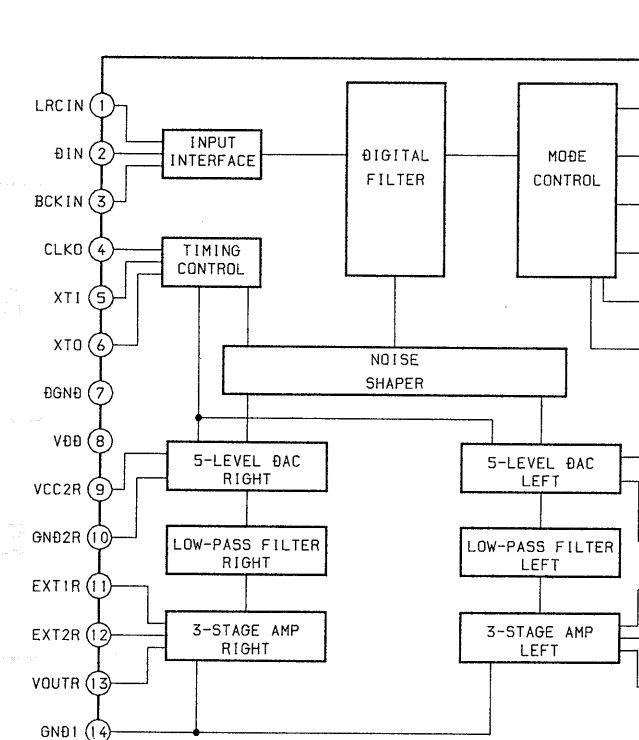
IC102 BA6397FP



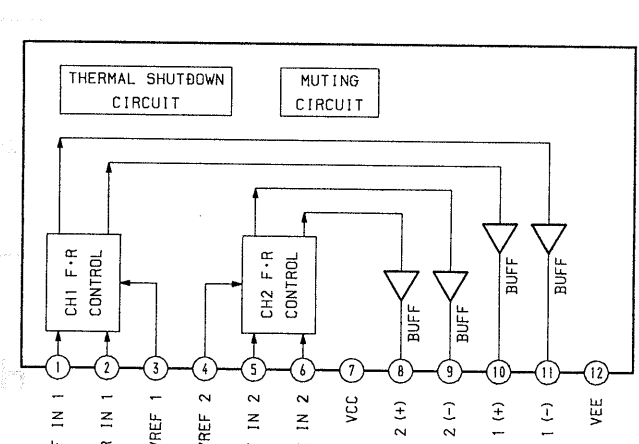
IC103 CXD2507




IC104 PCM1710U



IC301 BA6191

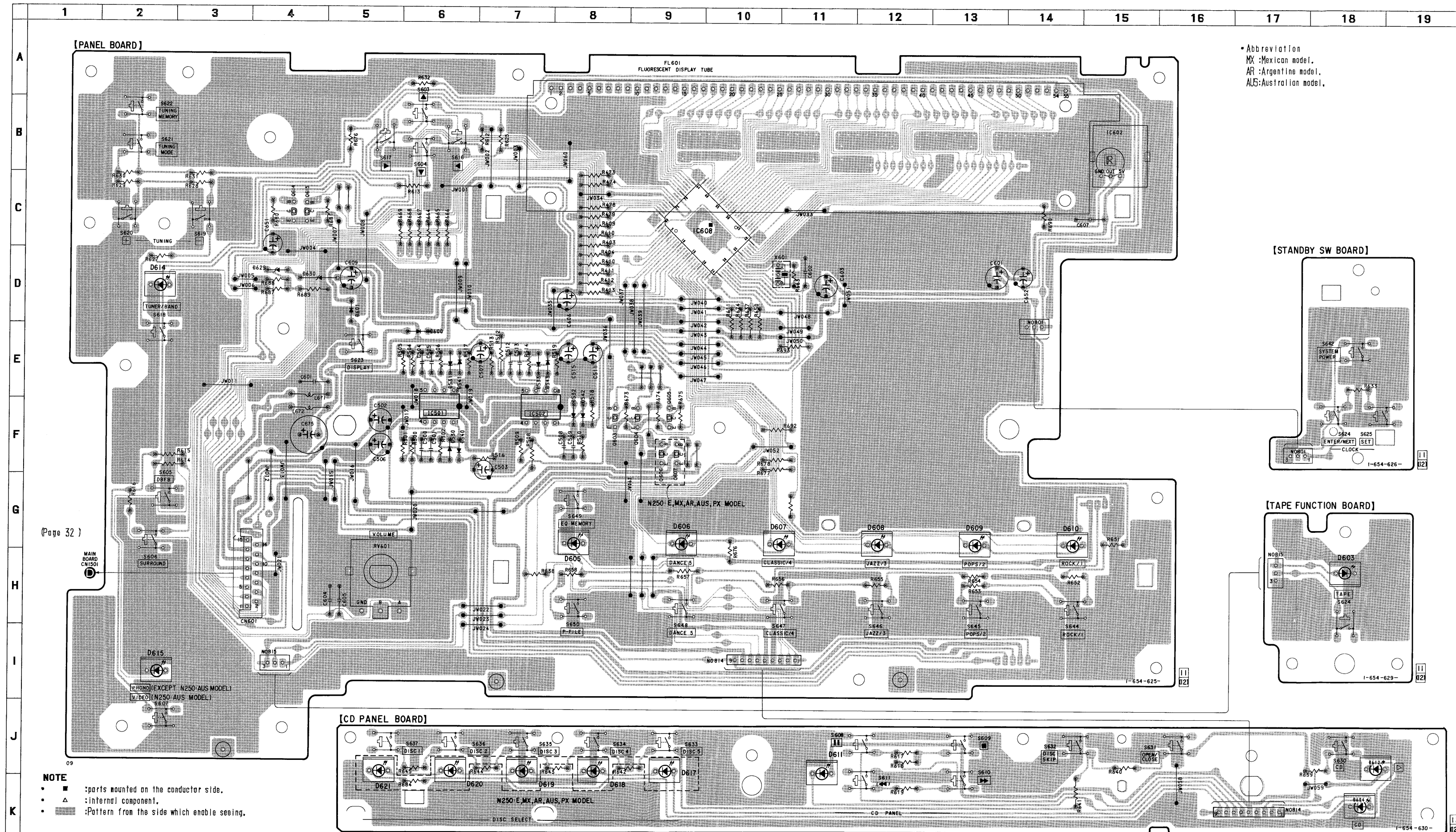



 MAIN BOARD
 CN1501
 (Page 36)

• IC608 GRAPHIC CONTROL (CXP82612-006Q) IC PIN FUNCTIONS

Pin No.	Pin Name	I/O	Function
1	ENC1A	I	Volume encoder signal input.
2	SIRCS	I	SIRCS signal input.
3	REQ. MG	I	Request signal from master control.
4	REQ. GM	O	Request signal to master control.
5, 6	$\overline{\text{LED1, 2}}$	O	LED drive signal output. (Not used.)
7-9	$\overline{\text{LED3-5}}$	O	LED drive signal output.
10	RDY	I/O	RDY signal from/to master control.
11	SCK IN	I	Serial clock input.
12	SD IN	I	Serial data input.
13	SD OUT	O	Serial data output.
14-21	$\overline{\text{LED6-13}}$	O	LED drive signal output.
22-25	KEY1-4	I	Key matrix input.
26-29	BPF1-4	I	Spectram analyzer signal input.
30	$\overline{\text{RST}}$	I	Reset signal input.
31	X IN	I	} X'tal (4MHz).
32	X OUT	O	
33	Vss	—	GND
34-58	AN1-25	O	FL segment signal output.
59-70	GR1-12	O	FL grid signal output.
71	VFDP	—	-25V for FL
72	VDD	—	+5V
73, 74	PD	I	Not used. (Pull up)
75	VDD	—	+5V
76, 77	$\overline{\text{LED14, 15}}$	O	LED drive signal output.
78, 79	ENC2B, A	I	Not used. (Pull up)
80	ENC1B	I	Volume encoder signal input.

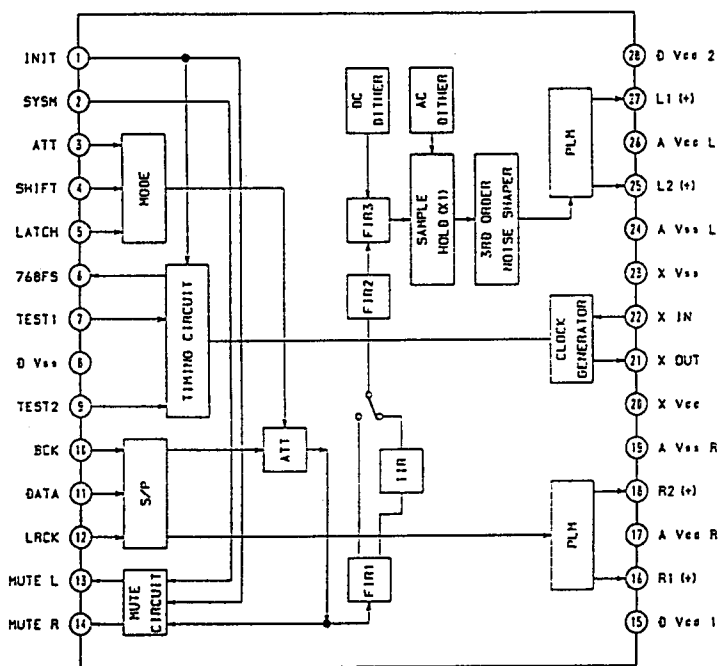
- See page 17 for Circuit Boards Location.
- See page 64 for Semiconductor Lead Layouts.



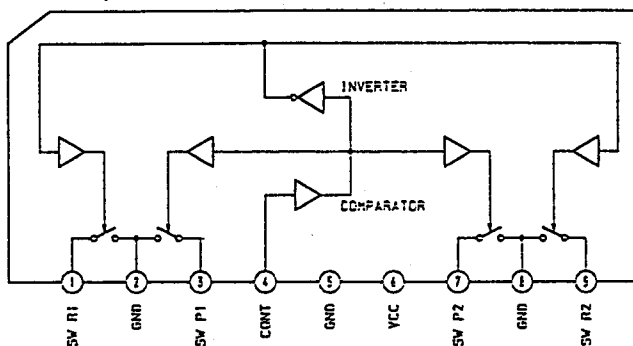
- **Semiconductor Location**

Ref. No.	Location
D530	F-6
D531	E-6
D532	F-8
D533	E-7
D540	F-6
D541	E-6
D542	F-8
D543	E-7
D600	E-6
D601	D-5
D603	H-18
D604	K-18
D605	H-8
D606	G-9
D607	G-11
D608	G-12
D609	G-13
D610	G-14
D611	J-11
D612	J-18
D614	D-2
D615	I-2
D617	J-9
D618	J-8
D619	J-7
D620	J-6
D621	J-5
D629	D-4
D630	D-4
IC501	F-6
IC502	F-7
IC602	B-15
IC608	C-10
Q603	E-8
Q604	F-9
Q605	F-9
Q606	F-9
Q607	F-9
Q614	C-4
Q615	C-4

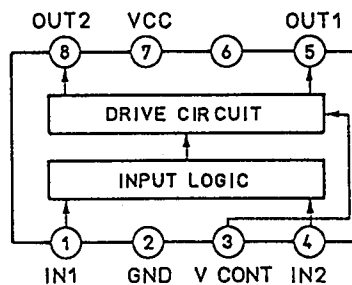
IC103 CXD2565M



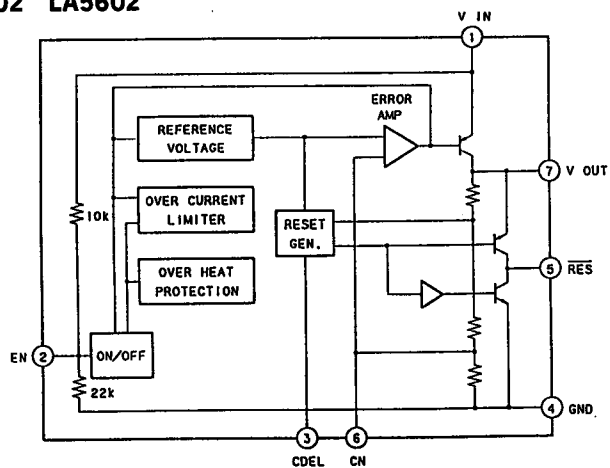
IC906 μ PC1330HA



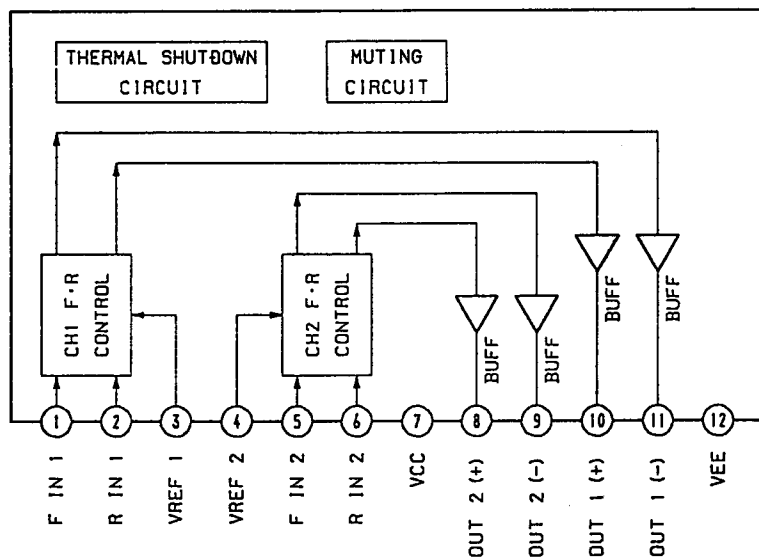
IC1103 LB1639



IC302 LA5602



IC341 BA6191



5-15. PIN DESCRIPTIONS

• IC601 μ PD78042GF-053-3B9

Pin No.	Pin Name	I/O	Pin Description
1	7G	O	FL tube digit output
2	6G	O	FL tube digit output
3	5G	O	FL tube digit output
4	4G	O	FL tube digit output
5	3G	O	FL tube digit output
6	2G	O	FL tube digit output
7	1G	O	FL tube digit output
8	VDD	—	Microcomputer power (5V)
9	CL	O	Serial clock output to LC7218 (PLL IC).
10	SO/IF COUNT NG	O	Serial data output to LC7218 (PLL IC).
11	SI	I	Serial data input from LC7218 (PLL IC).
12	CE/TIMER CLOCK	I	Chip enable input from LC7218 (PLL IC).
13	TUNED IN	I	Modulation signal from tuner block. (L...Field)
14	STEREO IN	I	Stereo signal from tuner block. (L...FM STEREO received)
15	MUTING	O	Audio mute (L : Mute)
16	AUX. OUT	—	Not used.
17	RESET	—	Microcomputer reset pin
18	FUNCTION A	O	Function control
19	FUNCTION B	O	Function control
20	AVSS	—	A/D GND for key input.
21	DISPLAY. DATA. 3	I	CD display data bit 3
22	DISPLAY. DATA. 2	I	CD display data bit 2
23	DISPLAY. DATA. 1	I	CD display data bit 1
24	DISPLAY. DATA. 0	I	CD display data bit 0
25	AUB. OUT	O	AU BUS output
26	RELAY	—	Not used.
27	KEY IN1	I	Key input (A/D change line 1)
28	KEY IN0	I	Key input (A/D change line 0)
29	AVDD	—	A/D power for key input (5V)
30	AVREF	—	A/D reference voltage (5V)
31	CD. BUSY	I	At H, CD is Active. (At H, tuner is fundamentally not operated.)
32	—	—	Not used.
33	GND	—	Microcomputer GND
34	X1	—	Crystal connection pin for Main•clock oscillator.
35	X2	—	Crystal connection pin for Main•clock oscillator.
36	POWER. MUTE	O	Power mute (L : Mute)
37	TAPE. LED	O	Tape function LED
38	CD. LED	O	CD function LED
39	TUNER. LED	O	Tuner function LED
40	PHONO. LED	O	Phono function LED
41	EQ. C	—	Not used.
42	EQ. B	—	Not used.
43	EQ. A	—	Not used.
44	HOLD	I	Power cut detection pin (Normally : H, AC no connect : L)

Pin No.	Pin Name	I/O	Pin Description
45	CD. CLOCK	I	CD display data clock
46	SIRCS IN	I	SIRCS input
47	AUB. IN	I	AU BUS input
48	—	—	Connect to GND.
49	FUNCTION. C	—	Not used.
50	VOL. B	O	Volume control (VOL DOWN)
51	VOL. A	O	Volume control (VOL UP)
52	VDD	—	Microcomputer power (5V)
53	—	—	Not used.
54	DIODE. IN2	I	Distination•model discrimination input * 1
55	DIODE. IN1	I	Distination•model discrimination input * 1
56	S0	O	FL tube segment output
57	S1	O	FL tube segment output
58	S2	O	Distination•model discrimination output * 1
59	S3	O	Distination•model discrimination output * 1
60	S4	O	FL tube segment output
61	S5	O	Distination•model discrimination output * 1
62	S6	O	FL tube segment output
63	S7	O	FL tube segment output
64	S8	O	FL tube segment output
65	S9	O	FL tube segment output
66	S10	O	FL tube segment output
67	S11	O	FL tube segment output
68	S12	O	FL tube segment output
69	S13	O	FL tube segment output
70	S14	O	FL tube segment output
71	V. LOAD	—	Minus voltage for FL tube.
72	S15	O	FL tube segment output
73	S16	O	FL tube segment output
74	S17	O	FL tube segment output
75	S18	O	FL tube segment output
76	S19	O	FL tube segment output
77	S20	O	FL tube segment output
78	VOL. LED	O	Volume LED output
79	9G	—	Not used.
80	8G	O	FL tube digit output

* 1

[DIODE MATRIX] (Pin No. is IC601's pin No.)

Output Input	Pin⑥	Pin⑤⑨	Pin⑤⑧
Pin⑤⑤	×	○	○
Pin⑤④	○	×	A

× : Not use for diode.

○ : Use for diode.

(DISTINATION SELECT)

	A195	D250	G2000
A	×	×	○

SECTION 6 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts
Example :

KNOB, BALANCE (WHITE)... (RED)

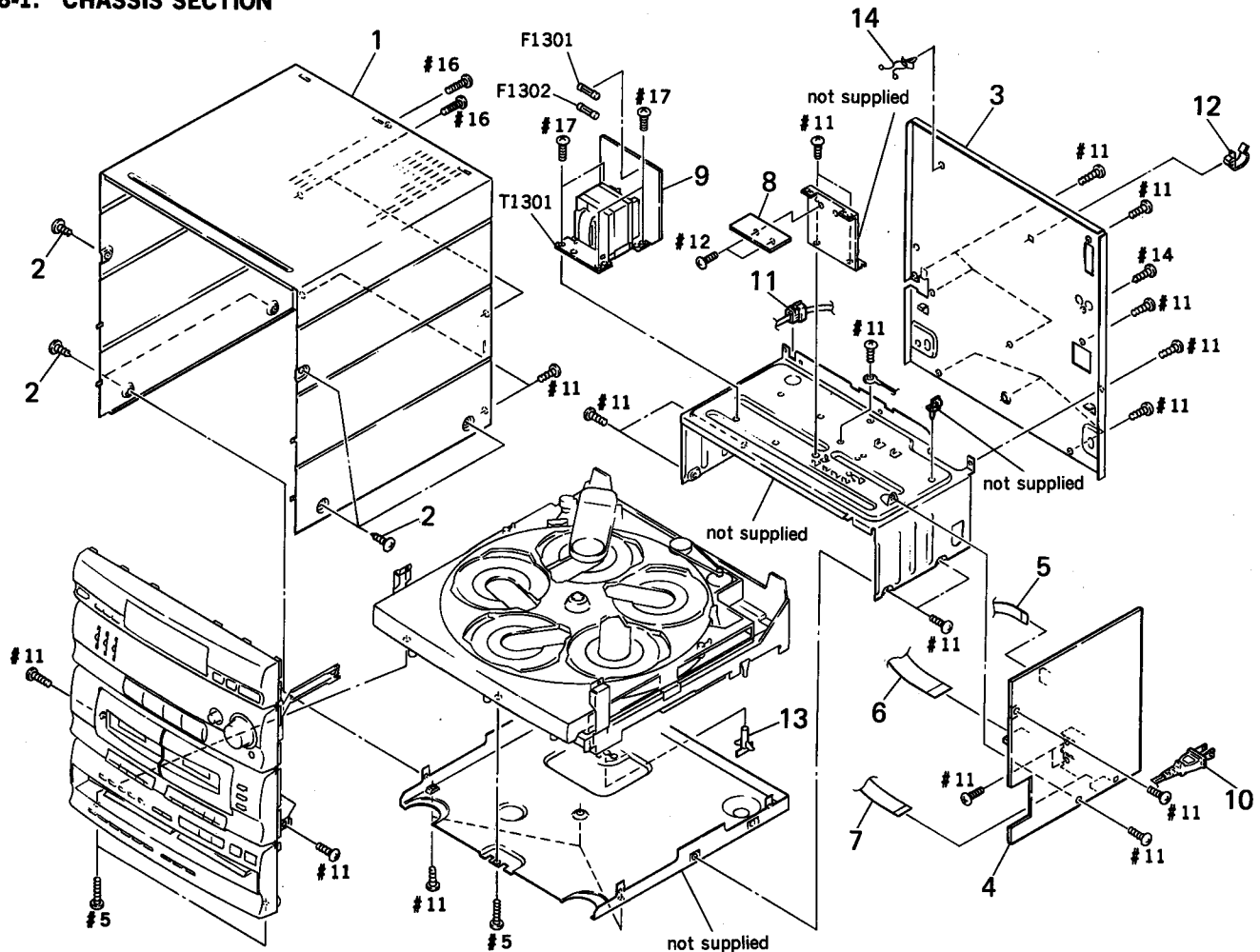
↑ ↑
Parts Color Cabinet's Color

- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

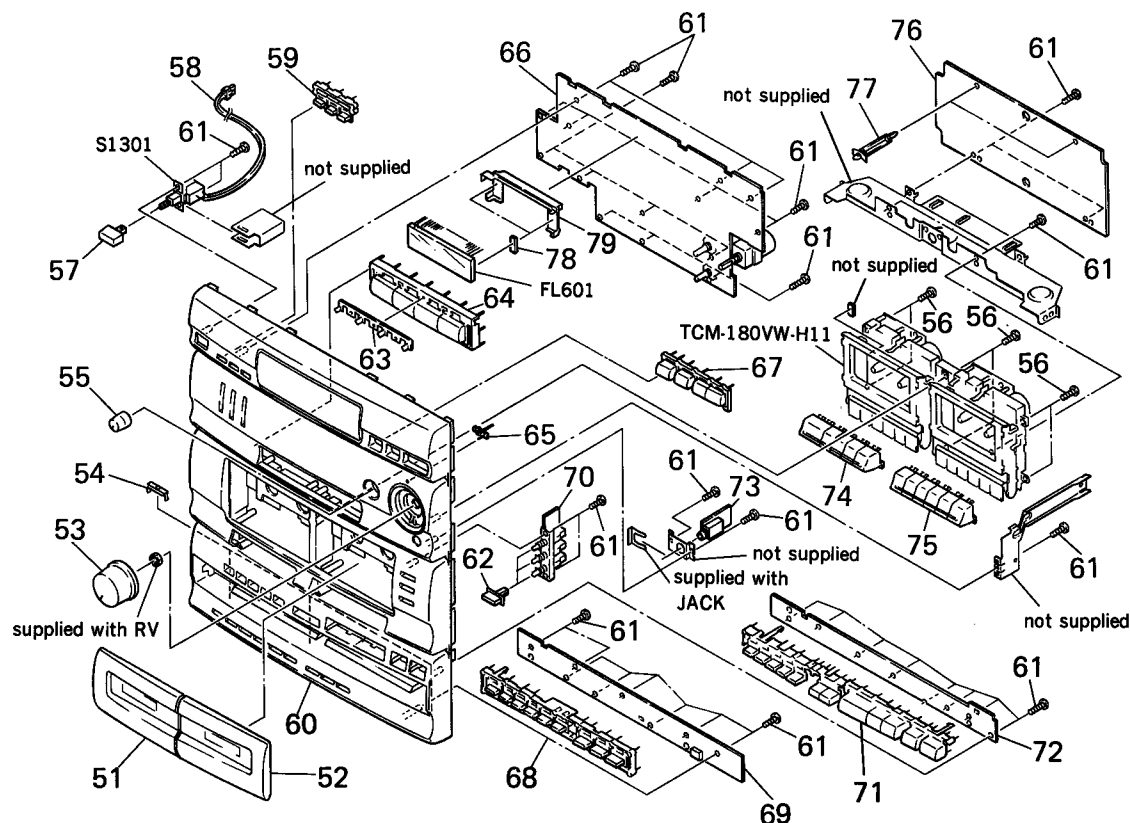
6-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
* 1	4-962-724-11	CASE (CDM) (A195, D250)	
* 1	4-962-724-71	CASE (CDM) (G2000)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	4-962-737-01	PANEL, BACK (D250)	
* 3	4-962-737-11	PANEL, BACK (G2000)	
* 3	4-962-737-21	PANEL, BACK (A195)	
* 4	A-4365-921-A	MAIN BOARD, COMPLETE (A195, D250)	
* 4	A-4365-939-A	MAIN BOARD, COMPLETE (G2000)	
5	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
6	1-751-746-11	WIRE (FLAT TYPE) (21 CORE)	
7	1-765-234-11	CORD, CONNECTION (17 CORE)	

Ref. No.	Part No.	Description	Remark
* 8	1-650-506-11	POWER AMPLIFIER BOARD	
* 9	1-650-598-11	POWER BOARD	
Δ 10	1-690-609-11	CORD, POWER	
* 11	3-703-244-00	BUSHING (2104), CORD	
* 12	4-949-235-01	HOOK	
13	4-937-945-01	PLATE (TRANSPORT), LOCK	
14	4-953-346-21	CLAMP, LEAD	
Δ F1301	1-576-108-11	FUSE (4A/125V)	
Δ F1302	1-576-108-11	FUSE (4A/125V)	
Δ T1301	1-423-912-11	TRANSFORMER, POWER (D250, G2000)	
Δ T1301	1-423-943-11	TRANSFORMER, POWER (A195)	

6-2. FRONT PANEL SECTION



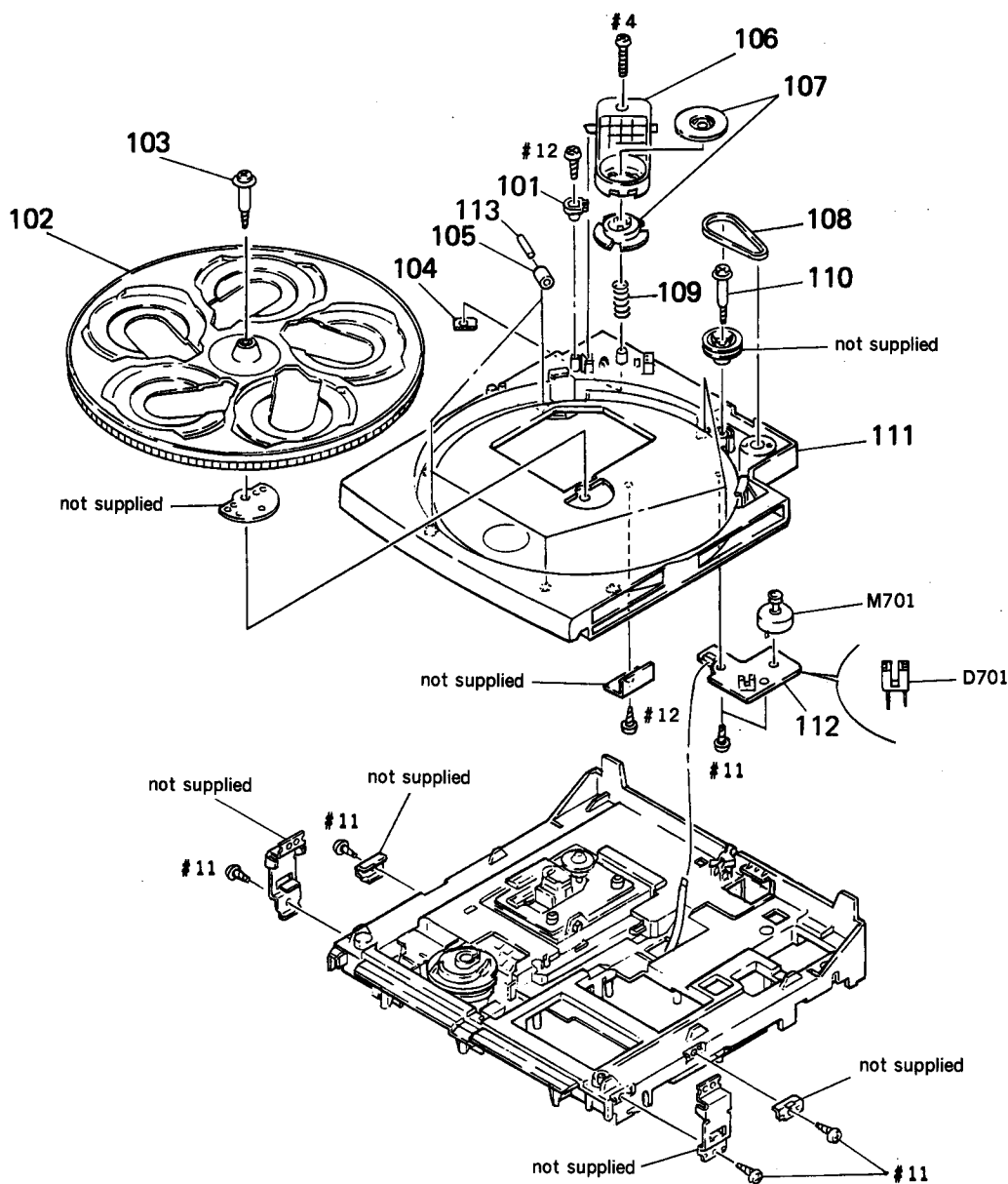
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
51	X-4944-276-1	LID (A) ASSY, CASSETTE (A195, D250)	
51	X-4944-323-1	LID (A) ASSY, CASSETTE (G2000)	
52	X-4944-277-1	LID (B) ASSY, CASSETTE (A195, D250)	
52	X-4944-324-1	LID (B) ASSY, CASSETTE (G2000)	
53	4-955-635-01	KNOB (V)	
54	4-962-705-01	CHASSIS, HOLDER	
55	4-962-703-02	KNOB (SUR)	
56	4-951-620-11	SCREW (2.6X10), +BVTP	
57	4-930-783-31	BUTTON (PO)	
58	1-690-708-11	CORD (WITH CONNECTOR)	
59	4-962-660-01	BUTTON (MEMORY)	
60	X-4944-677-1	PANEL ASSY, FRONT (D250)	
60	X-4944-678-1	PANEL ASSY, FRONT (G2000)	
60	X-4944-679-1	PANEL ASSY, FRONT (A195)	
61	4-951-620-01	SCREW (2.6X8), +BVTP	
62	4-964-288-01	BUTTON (DDT-3)	
63	4-962-669-01	INDICATOR (FU)	
64	4-962-662-01	BUTTON (FU) (A195, D250)	
64	4-962-662-11	BUTTON (FU) (G2000)	
65	4-962-682-01	INDICATOR (VO)	

Ref. No.	Part No.	Description	Remark
* 66	A-4365-917-A	PANEL BOARD, COMPLETE (D250)	
* 66	A-4365-933-A	PANEL BOARD, COMPLETE (G2000)	
* 66	A-4365-941-A	PANEL BOARD, COMPLETE (A195)	
67	4-962-661-01	BUTTON (BAND)	
68	4-962-666-01	BUTTON (PROGRAM)	
* 69	1-650-509-11	CD LOWER BOARD	
* 70	1-650-511-11	SW BOARD	
71	X-4944-347-1	BUTTON (CDM) ASSY	
* 72	1-650-508-11	CD UPPER BOARD	
* 73	1-650-510-11	H. P. BOARD	
74	4-962-663-01	BUTTON (MD-A)	
75	4-962-664-01	BUTTON (MD-B)	
* 76	A-4365-787-A	MAIN TC BOARD, COMPLETE (A195, G2000)	
* 76	A-4365-909-A	MAIN TC BOARD, COMPLETE (D250)	
* 77	4-924-098-81	HOLDER, PC BOARD	
* 78	4-949-935-01	CUSHION (FL)	
* 79	4-955-792-01	HOLDER (5M), FL TUBE	
FL601	1-517-259-11	INDICATOR TUBE, FLUORESCENT	
Δ S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	

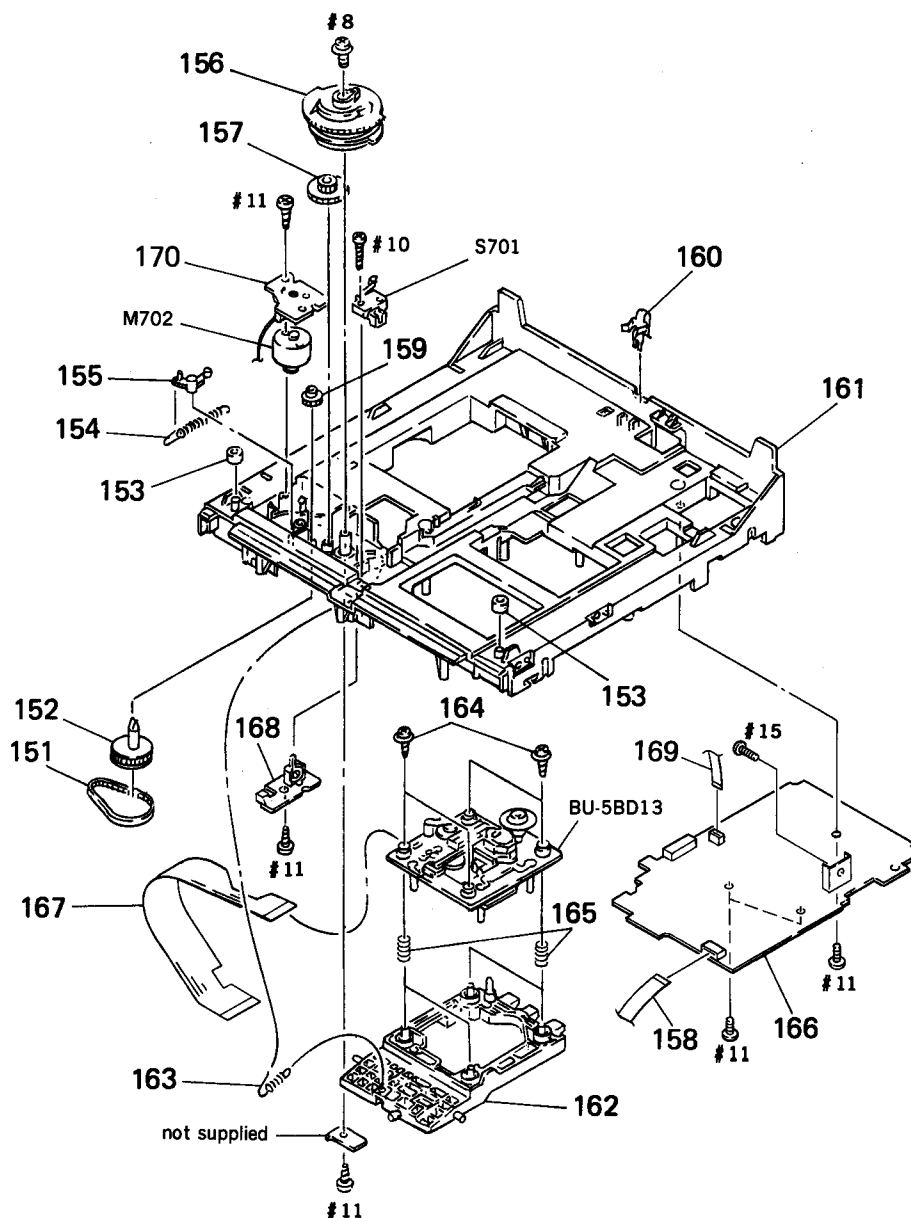
6-3. TRAY SECTION



Ref. No.	Part No.	Description	Remark
* 101	4-949-226-01	PLATE, LOCK	
* 102	4-926-383-01	TABLE (B), DISC	
103	4-926-384-01	SCREW, STEP	
* 104	4-926-388-01	BRACKET (ADJUSTMENT)	
105	X-4924-457-1	ROLLER ASSY	
* 106	4-930-506-02	BRACKET (PRESS PULLEY)	
* 107	1-452-538-11	MAGNET	
108	4-926-399-01	BELT	

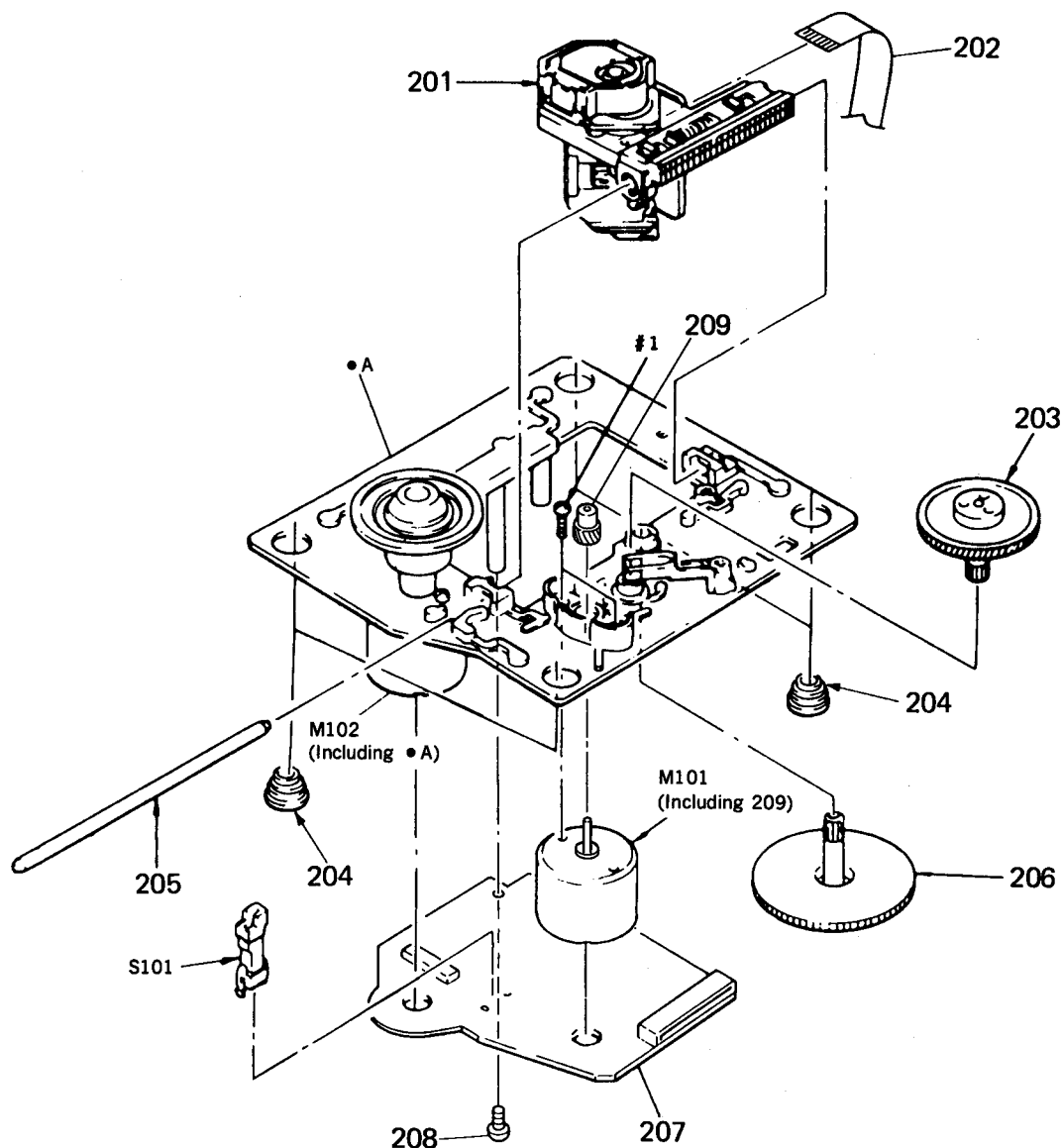
Ref. No.	Part No.	Description	Remark
109	4-926-395-01	SPRING, COMPRESSION	
110	4-923-597-01	SCREW, STEP	
111	4-955-787-21	TABLE, DISC (G2000)	
111	4-955-787-41	TABLE, DISC (A195, D250)	
* 112	1-638-729-11	TABLE MOTOR BOARD	
113	4-934-376-01	SHAFT (ROLLER)	
D701	8-719-970-19	PHOTO SENSOR GP-1A521	
M701	A-4604-849-A	MOTOR ASSY, ROTARY	

6-4. CD CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-944-490-01	BELT (TIMING)		* 162	4-934-373-01	BRACKET (BU)	
152	X-4941-529-1	PULLEY ASSY		163	4-937-911-01	SPRING, TENSION	
* 153	4-951-619-01	CUSHION (A)		164	4-933-134-01	SCREW (+PTPH M2.6X6)	
154	4-924-412-01	SPRING (B), TENSION		165	4-958-593-01	SPRING (BU), COMPRESSION	
155	4-917-519-11	LEVER, SET		* 166	A-4365-928-A	CD MAIN BOARD, COMPLETE	
156	4-934-391-01	GEAR (LOADING A)		167	1-537-645-11	JUMPER, FILM (WITH TERMINAL)	
157	4-934-381-01	GEAR (LOADING C)		* 168	1-638-731-11	OPEN/UP SW BOARD	
158	1-765-195-11	WIRE (FLAT TYPE) (7 CORE)		169	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
159	4-934-375-01	GEAR (LOADING B)		* 170	1-639-288-11	LOADING MOTOR BOARD	
* 160	4-943-996-06	SPRING, LEAF		M702	A-4604-847-A	MOTOR ASSY, LOADING	
* 161	4-943-997-31	CHASSIS		S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR) (DOWN)	

6-5. OPTICAL PICK-UP BLOCK SECTION (BU-5BD13)



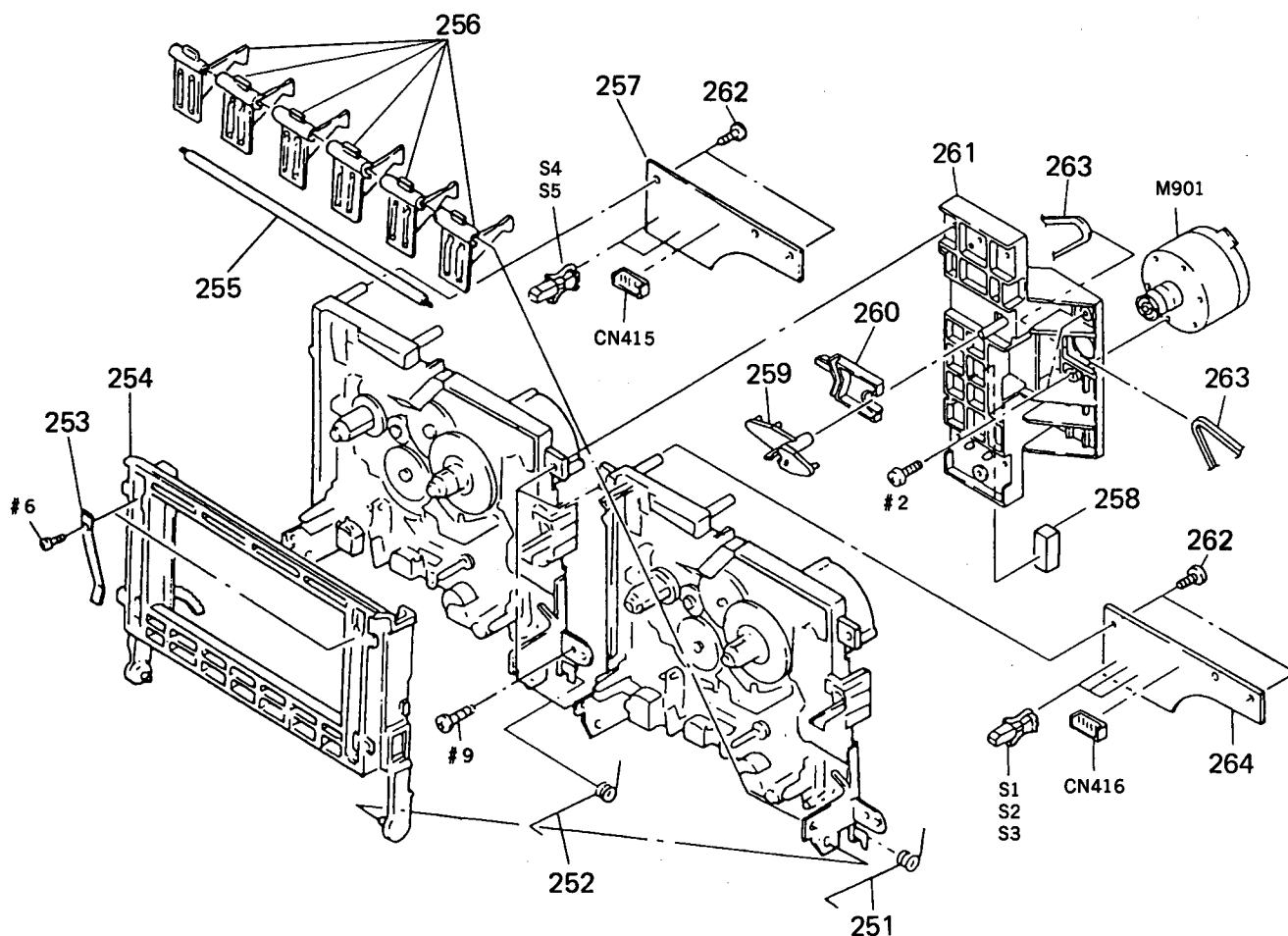
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
Δ 201	8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-01	GEAR (M)	
204	4-951-940-01	INSULATOR (BU)	
205	4-917-565-01	SHAFT, SLED	
206	4-917-564-01	GEAR (P), FLATNESS	

Ref. No.	Part No.	Description	Remark
* 207	A-4673-064-A	BD BOARD, COMPLETE	
208	4-951-620-01	SCREW (2.6X8), +BVTP	
209	4-917-566-01	GEAR (S)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-4	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

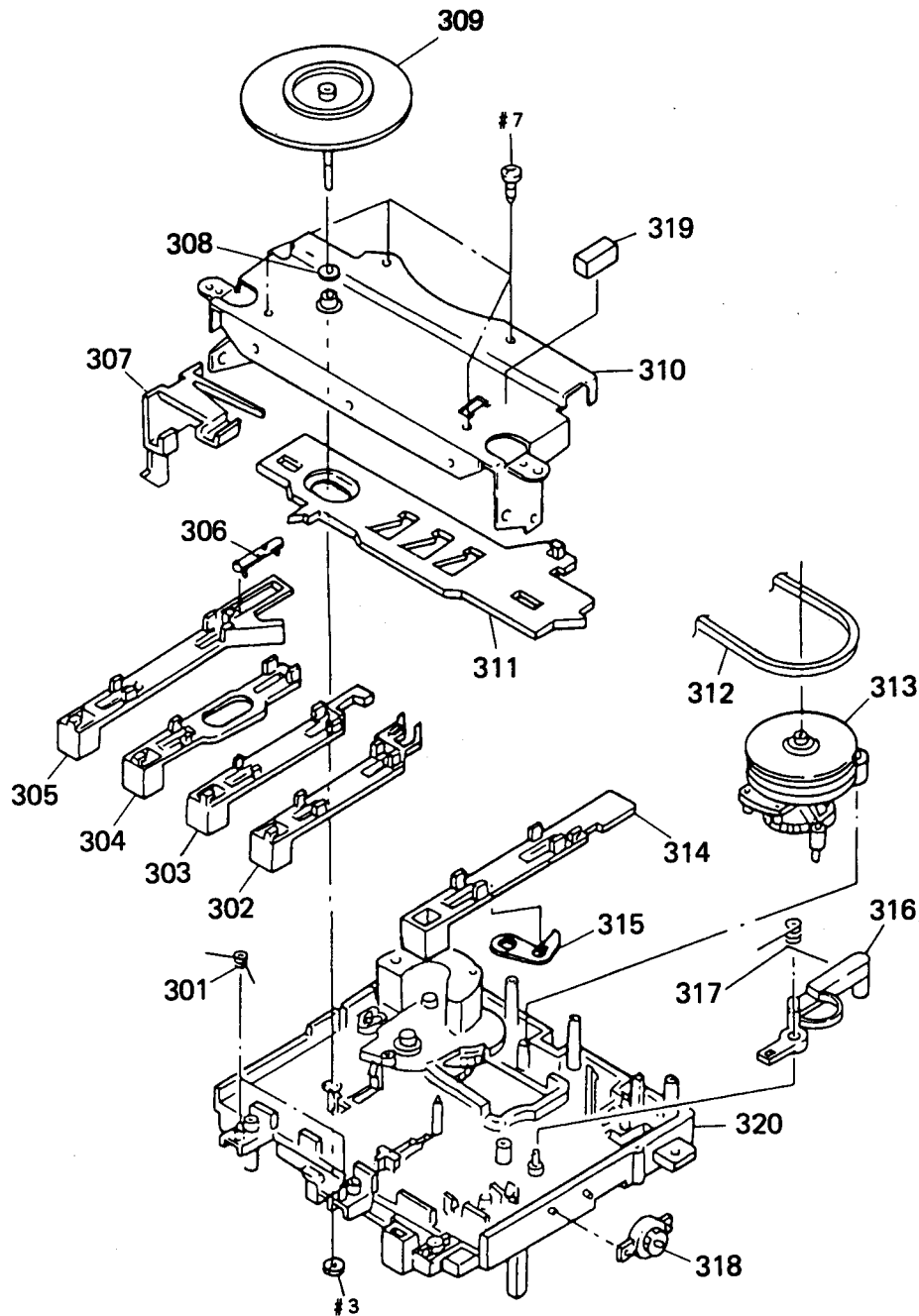
6-6. MECHANISM DECK SECTION 1
(TCM-180VW-H11)



Ref. No.	Part No.	Description	Remark
251	3-358-287-01	SPRING (LOADING A), TORSION	
252	3-358-229-01	SPRING (LOADING), TORSION	
253	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF	
254	3-358-266-02	HOLDER, CASSETTE	
255	3-371-917-01	SHAFT (BUTTON SHAFT 4)	
256	3-369-335-01	LEVER (BUTTON BASE F)	
* 257	1-640-702-11	LEAF SW (A) BOARD	
* 258	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
259	3-358-203-01	LEVER (TRIGGER)	
260	3-358-202-01	SLIDER (TRIGGER)	
* 261	3-363-930-01	BRACKET (JOINT BASE)	

Ref. No.	Part No.	Description	Remark
262	4-951-620-01	SCREW (2.6X8), +BVTP	
263	3-364-777-01	BELT (WH)	
* 264	1-640-703-11	LEAF SW (B) BOARD	
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
M901	X-3362-377-1	MOTOR (WH) ASSY	
S1	1-571-736-11	SWITCH, LEAF (MOTOR) (DECK B)	
S2	1-571-736-11	SWITCH, LEAF (PLAY) (DECK B)	
S3	1-571-736-11	SWITCH, LEAF (REC) (DECK B)	
S4	1-571-736-11	SWITCH, LEAF (MOTOR) (DECK A)	
S5	1-571-736-11	SWITCH, LEAF (PLAY) (DECK A)	

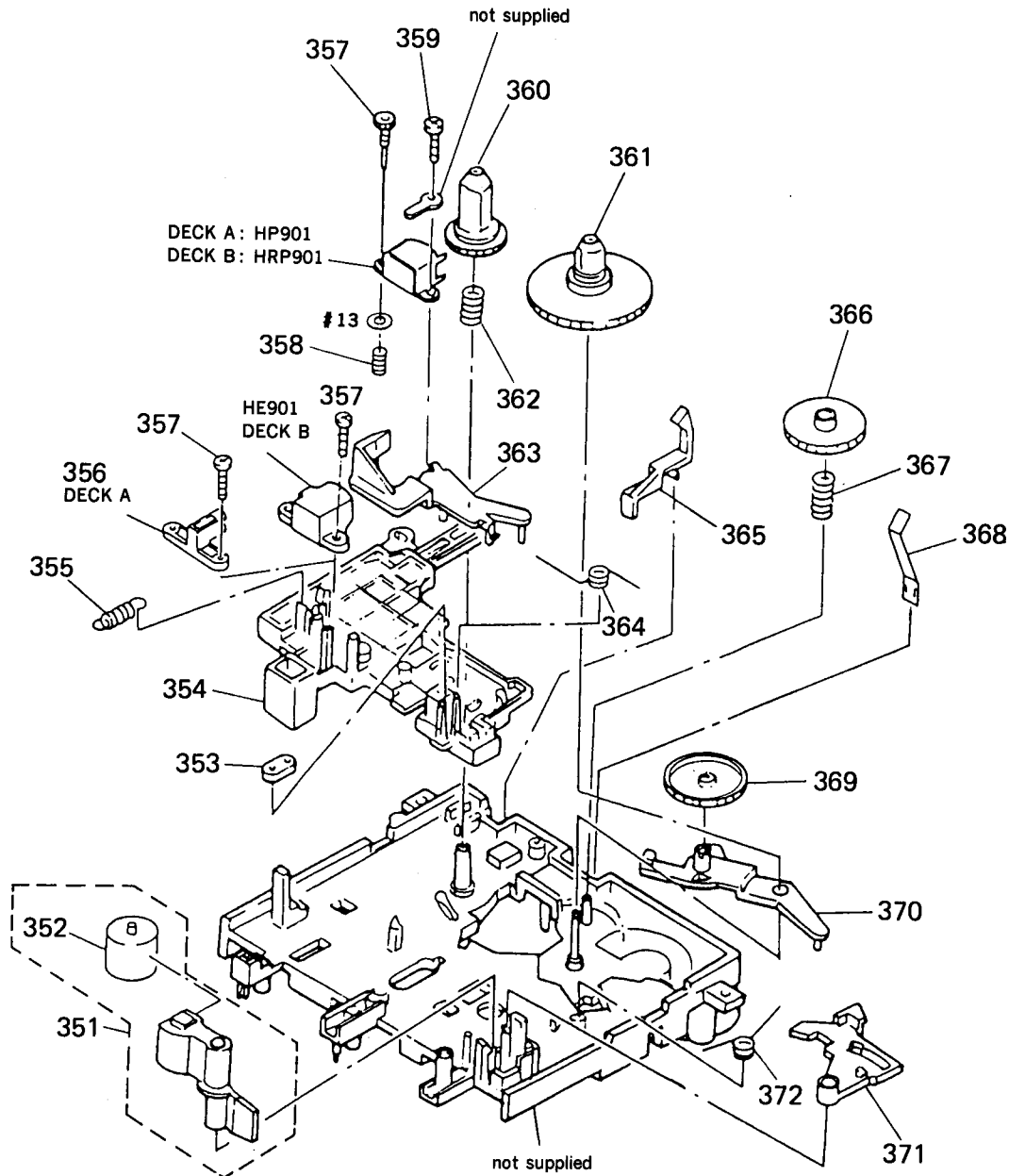
6-7. MECHANISM DECK SECTION 2
(TCM-180VW-H11)



Ref. No.	Part No.	Description	Remark
301	3-358-232-01	SPRING (S-P F-R), TORSION	
302	3-358-258-01	SLIDER (REW)	
303	3-358-257-01	SLIDER (FF)	
304	3-358-256-01	SLIDER (STOP/EJECT)	
305	3-358-260-01	SLIDER (PAUSE)	
* 306	3-358-226-01	LEVER (PAUSE LEVER)	
* 307	3-358-261-02	SLIDER (HOLDER LOCK)	
308	3-701-437-01	WASHER	
309	X-3358-205-1	FLYWHEEL (A) ASSY (DECK B)	
309	X-3366-859-1	FLYWHEEL (D) ASSY (DECK A)	
* 310	X-3358-208-1	BRACKET (B) ASSY	

Ref. No.	Part No.	Description	Remark
* 311	3-358-249-01	SLIDER (LOCK PLATE)	
312	3-358-230-01	BELT (A1)	
313	X-3358-202-1	LEVER (FR ARM) ASSY	
314	3-358-259-01	SLIDER (REC) (DECK B)	
* 315	3-358-204-01	LEVER (REC SAFETY) (DECK B)	
316	3-358-286-01	LEVER (MOTOR LEVER)	
317	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
317	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
318	3-319-224-51	DAMPER, SMALL	
* 319	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
320	X-3358-207-2	CHASSIS (A) ASSY	

**6-8. MECHANISM DECK SECTION 3
(TCM-180VW-H11)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	X-3358-204-1	LEVER (PINCH LEVER) ASSY		364	3-358-228-01	SPRING, TORSION	
352	3-578-143-11	PINCH ROLLER		* 365	3-358-255-01	LEVER (GB LEVER) (DECK B)	
* 353	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 366	3-358-224-01	GEAR (FF GEAR)	
354	3-358-265-01	SLIDER (HEAD PC BOARD A)		367	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
355	3-358-217-01	SPRING, TENSION		368	3-358-227-01	SPRING, LEAF	
* 356	3-363-931-01	GUIDE, TAPE (DECK A)		* 369	3-358-284-01	GEAR (TU GEAR)	
357	3-358-288-11	SCREW (T), AZIMUTH		* 370	3-358-252-01	LEVER (TU ARM)	
358	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 371	3-358-253-01	LEVER (SHUT-OFF LEVER)	
359	3-358-288-01	SCREW (T), AZIMUTH		372	3-358-243-01	SPRING (TU-SHUT), TORSION	
360	3-358-248-01	GEAR (SUPPLY REEL)		HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
361	X-3358-203-1	TABLE (T) ASSY, REEL		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
362	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 363	3-358-251-01	LEVER (TENSION DETECTION ARM)					

SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:uA...: μ A... uPA...: μ PA...uPB...: μ PB... uPC...: μ PC... uPD...: μ PD...

● CAPACITORS

uF: μ F

● COILS

uH: μ H

When indicating parts by reference number, please include the board.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4673-064-A	BD BOARD, COMPLETE *****		C196	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
				C197	1-163-038-00	CERAMIC CHIP 0.1uF	25V
		< CAPACITOR >				< CONNECTOR >	
C101	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	* CN101	1-580-875-11	SOCKET, CONNECTOR (SMT) 26P	
C102	1-163-038-00	CERAMIC CHIP 0.1uF	25V	CN102	1-580-866-11	SOCKET, CONNECTOR (SMT) 12P	
C103	1-163-005-11	CERAMIC CHIP 470PF	10% 50V			< IC >	
C105	1-135-155-21	TANTALUM CHIP 4.7uF	10% 16V	IC101	8-752-367-16	IC CXD2515Q	
C106	1-164-346-11	CERAMIC CHIP 1uF	16V	IC102	8-759-176-09	IC BA6392FP	
C107	1-164-505-11	CERAMIC CHIP 2.2uF	16V	IC103	8-752-360-60	IC CXD2565M-1	
C108	1-163-035-00	CERAMIC CHIP 0.047uF	50V			< COIL >	
C109	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	L101	1-414-234-11	INDUCTOR, FERRITE BEAD	
C110	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V	L102	1-414-234-11	INDUCTOR, FERRITE BEAD	
C111	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	L103	1-414-234-11	INDUCTOR, FERRITE BEAD	
C112	1-163-038-00	CERAMIC CHIP 0.1uF	25V	L104	1-216-001-00	METAL CHIP 10 5%	1/10W
C113	1-163-038-00	CERAMIC CHIP 0.1uF	25V	L106	1-414-234-11	INDUCTOR, FERRITE BEAD	
C124	1-164-005-11	CERAMIC CHIP 0.47uF	25V			< RESISTOR >	
C131	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R101	1-216-077-00	METAL CHIP 15K 5%	1/10W
C132	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R102	1-216-097-00	METAL CHIP 100K 5%	1/10W
C133	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R103	1-216-077-00	METAL CHIP 15K 5%	1/10W
C153	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R104	1-216-085-00	METAL CHIP 33K 5%	1/10W
C159	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V	R106	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C161	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R107	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
C177	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R109	1-216-121-00	METAL CHIP 1M 5%	1/10W
C178	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R124	1-216-097-00	METAL CHIP 100K 5%	1/10W
C179	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R131	1-216-037-00	METAL CHIP 330 5%	1/10W
C181	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R158	1-216-111-00	METAL CHIP 390K 5%	1/10W
C182	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R159	1-216-101-00	METAL CHIP 150K 5%	1/10W
C183	1-135-156-21	TANTALUM CHIP 6.8uF	10% 10V	R181	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
C184	1-135-156-21	TANTALUM CHIP 6.8uF	10% 10V	R182	1-216-080-00	METAL CHIP 20K 5%	1/10W
C185	1-135-156-21	TANTALUM CHIP 6.8uF	10% 10V	R183	1-216-080-00	METAL CHIP 20K 5%	1/10W
C186	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R184	1-216-080-00	METAL CHIP 20K 5%	1/10W
C187	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R185	1-216-080-00	METAL CHIP 20K 5%	1/10W
C188	1-163-038-00	CERAMIC CHIP 0.1uF	25V	R187	1-216-035-00	METAL CHIP 270 5%	1/10W
C191	1-163-091-00	CERAMIC CHIP 8PF	50V	R188	1-216-121-00	METAL CHIP 1M 5%	1/10W
C192	1-163-091-00	CERAMIC CHIP 8PF	50V	R189	1-414-234-11	INDUCTOR, FERRITE BEAD	
C193	1-163-125-00	CERAMIC CHIP 220PF	5% 50V				
C194	1-163-125-00	CERAMIC CHIP 220PF	5% 50V				
C195	1-163-038-00	CERAMIC CHIP 0.1uF	25V				

BD

CD LOWER

CD MAIN

Ref.No.	Part No.	Description	Remark
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< SWITCH >

S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
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< VIBRATOR >

X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)	
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*	1-650-509-11	CD LOWER BOARD	
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< CONNECTOR >

CN201	1-691-644-11	SOCKET, CONNECTOR 7P	
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< RESISTOR >

R201	1-249-418-11	CARBON	1.2K	5%	1/4W
R202	1-247-836-11	CARBON	1.6K	5%	1/4W
R203	1-249-421-11	CARBON	2.2K	5%	1/4W
R204	1-249-423-11	CARBON	3.3K	5%	1/4W
R205	1-249-426-11	CARBON	5.6K	5%	1/4W
R206	1-247-856-00	CARBON	11K	5%	1/4W
R207	1-249-418-11	CARBON	1.2K	5%	1/4W
R208	1-247-836-11	CARBON	1.6K	5%	1/4W

< SWITCH >

S201	1-554-303-21	SWITCH, TACTILE (PROGRAM (PLAY MODE))
S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE (PLAY MODE))
S203	1-554-303-21	SWITCH, TACTILE (CONTINUE (PLAY MODE))
S204	1-554-303-21	SWITCH, TACTILE (EDIT)
S205	1-554-303-21	SWITCH, TACTILE (CLEAR)
S206	1-554-303-21	SWITCH, TACTILE (CHECK)
S207	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)
S208	1-554-303-21	SWITCH, TACTILE (REPEAT)
S209	1-554-303-21	SWITCH, TACTILE (TIME)

Ref.No.	Part No.	Description	Remark
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*	A-4365-928-A	CD MAIN BOARD, COMPLETE	
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4-875-327-41 HEAT SINK

7-682-547-09 SCREW +BVTT 3X6 (S)

< CAPACITOR >

C306	1-126-059-11	ELECT	10uF	20%	50V
C307	1-126-163-11	ELECT	4.7uF	20%	50V
C308	1-124-472-11	ELECT	470uF	20%	10V
C309	1-124-473-11	ELECT	1000uF	20%	10V
C311	1-126-300-11	ELECT	0.47uF	20%	50V
C312	1-124-472-11	ELECT	470uF	20%	10V
C314	1-126-059-11	ELECT	10uF	20%	50V
C315	1-126-163-11	ELECT	4.7uF	20%	50V
C317	1-126-022-11	ELECT	47uF	20%	16V
C318	1-164-159-11	CERAMIC	0.1uF		50V
C320	1-161-494-00	CERAMIC	0.022uF		25V
C321	1-126-022-11	ELECT	47uF	20%	16V
C322	1-161-494-00	CERAMIC	0.022uF		25V
C323	1-164-159-11	CERAMIC	0.1uF		50V
C341	1-126-376-11	ELECT	470uF	20%	25V
C362	1-164-159-11	CERAMIC	0.1uF		50V
C364	1-164-159-11	CERAMIC	0.1uF		50V
C366	1-162-282-31	CERAMIC	100PF	10%	50V
C371	1-162-284-31	CERAMIC	150PF	10%	50V
C372	1-162-284-31	CERAMIC	150PF	10%	50V
C373	1-162-284-31	CERAMIC	150PF	10%	50V
C374	1-162-284-31	CERAMIC	150PF	10%	50V
C375	1-130-479-00	MYLAR	0.0047uF	5%	50V
C376	1-130-479-00	MYLAR	0.0047uF	5%	50V
C377	1-130-472-00	MYLAR	0.0012uF	5%	50V
C378	1-130-472-00	MYLAR	0.0012uF	5%	50V
C379	1-124-443-00	ELECT	100uF	20%	10V
C380	1-124-443-00	ELECT	100uF	20%	10V
C381	1-162-291-31	CERAMIC	560PF	10%	50V
C382	1-162-291-31	CERAMIC	560PF	10%	50V

< CONNECTOR >

CN301	1-750-585-11	CONNECTOR, FFC/FPC 7P
* CN303	1-568-943-11	PIN, CONNECTOR 5P
CN305	1-750-997-11	CONNECTOR, FFC/FPC 5P
CN306	1-764-415-11	CONNECTOR, FFC/FPC 26P
* CN309	1-568-836-11	SOCKET, CONNECTOR 17P

< DIODE >

D321	8-719-987-63	DIODE	1N4148M
D341	8-719-010-42	DIODE	UZ-5.6BSB

CD MAIN

CD UPPER

Ref.No.	Part No.	Description	Remark
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< IC >

IC302	8-759-061-65	IC LA5602	
IC304	8-759-805-37	IC L78LR05D-MA	
IC305	8-759-605-00	IC MSF78M07L	
IC321	8-752-854-58	IC CXP82316-038Q	
IC341	8-759-172-31	IC BA6191	

IC371	8-759-145-58	IC uPC4558C	
IC372	8-759-145-58	IC uPC4558C	

< DIODE >

JW304	8-719-200-82	DIODE 11ES2	
JW317	8-719-200-82	DIODE 11ES2	
JW427	8-719-987-63	DIODE 1N4148M	
JW428	8-719-987-63	DIODE 1N4148M	

< TRANSISTOR >

Q302	8-729-900-65	TRANSISTOR DTA144ES	
Q303	8-729-900-89	TRANSISTOR DTC144ES	
Q322	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q341	8-729-900-89	TRANSISTOR DTC144ES	
Q352	8-729-900-65	TRANSISTOR DTA144ES	

Q353	8-729-900-65	TRANSISTOR DTA144ES	
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< RESISTOR >

R308	1-260-064-11	CARBON 1 5% 1/2W	
R313	1-249-417-11	CARBON 1K 5% 1/4W	
R321	1-249-429-11	CARBON 10K 5% 1/4W	
R322	1-249-429-11	CARBON 10K 5% 1/4W	
R323	1-249-417-11	CARBON 1K 5% 1/4W	
R324	1-249-428-11	CARBON 8.2K 5% 1/4W	
R325	1-249-428-11	CARBON 8.2K 5% 1/4W	
R326	1-249-428-11	CARBON 8.2K 5% 1/4W	
R327	1-249-428-11	CARBON 8.2K 5% 1/4W	
R328	1-249-428-11	CARBON 8.2K 5% 1/4W	
R329	1-249-428-11	CARBON 8.2K 5% 1/4W	
R333	1-249-417-11	CARBON 1K 5% 1/4W	
R334	1-249-425-11	CARBON 4.7K 5% 1/4W	
R335	1-249-429-11	CARBON 10K 5% 1/4W	
R336	1-249-429-11	CARBON 10K 5% 1/4W	
R338	1-249-425-11	CARBON 4.7K 5% 1/4W	
R339	1-249-425-11	CARBON 4.7K 5% 1/4W	
R340	1-249-425-11	CARBON 4.7K 5% 1/4W	
R341	1-247-876-11	CARBON 75K 5% 1/4W	
R342	1-247-876-11	CARBON 75K 5% 1/4W	
R343	1-247-876-11	CARBON 75K 5% 1/4W	
R344	1-247-876-11	CARBON 75K 5% 1/4W	
R345	1-249-423-11	CARBON 3.3K 5% 1/4W	
R346	1-249-424-11	CARBON 3.9K 5% 1/4W	

Ref.No.	Part No.	Description	Remark
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R347	1-249-415-11	CARBON 680 5% 1/4W	
R348	1-247-834-11	CARBON 1.3K 5% 1/4W	
R349	1-249-428-11	CARBON 8.2K 5% 1/4W	
R350	1-247-862-11	CARBON 20K 5% 1/4W	
R359	1-249-417-11	CARBON 1K 5% 1/4W	

R360	1-249-417-11	CARBON 1K 5% 1/4W	
R361	1-249-429-11	CARBON 10K 5% 1/4W	
R363	1-249-417-11	CARBON 1K 5% 1/4W	
R365	1-249-417-11	CARBON 1K 5% 1/4W	
R366	1-249-417-11	CARBON 1K 5% 1/4W	

R367	1-249-417-11	CARBON 1K 5% 1/4W	
R368	1-249-417-11	CARBON 1K 5% 1/4W	
R371	1-247-852-11	CARBON 7.5K 5% 1/4W	
R372	1-247-852-11	CARBON 7.5K 5% 1/4W	
R373	1-247-852-11	CARBON 7.5K 5% 1/4W	

R374	1-247-852-11	CARBON 7.5K 5% 1/4W	
R375	1-249-431-11	CARBON 15K 5% 1/4W	
R376	1-249-431-11	CARBON 15K 5% 1/4W	
R377	1-249-431-11	CARBON 15K 5% 1/4W	
R378	1-249-431-11	CARBON 15K 5% 1/4W	

R379	1-249-419-11	CARBON 1.5K 5% 1/4W	
R380	1-249-419-11	CARBON 1.5K 5% 1/4W	
R381	1-249-419-11	CARBON 1.5K 5% 1/4W	
R382	1-249-419-11	CARBON 1.5K 5% 1/4W	
R383	1-249-441-11	CARBON 100K 5% 1/4W	

R384	1-249-441-11	CARBON 100K 5% 1/4W	
R385	1-249-421-11	CARBON 2.2K 5% 1/4W	
R386	1-249-421-11	CARBON 2.2K 5% 1/4W	
R389	1-247-807-31	CARBON 100 5% 1/4W	
R390	1-247-807-31	CARBON 100 5% 1/4W	

< VIBRATOR >

X321	1-579-175-11	VIBRATOR, CERAMIC (10MHz)	
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* 1-650-508-11 CD UPPER BOARD

< DIODE >

D201	8-719-313-72	LED SEL3810A-CD (II)	
D202	8-719-313-66	LED SEL3410E-TH12 (D)	

< RESISTOR >

R209	1-249-421-11	CARBON 2.2K 5% 1/4W	
R210	1-249-423-11	CARBON 3.3K 5% 1/4W	
R211	1-249-426-11	CARBON 5.6K 5% 1/4W	
R212	1-247-856-00	CARBON 11K 5% 1/4W	
R213	1-249-418-11	CARBON 1.2K 5% 1/4W	
R214	1-247-836-11	CARBON 1.6K 5% 1/4W	

CD UPPER	H. P.	LEAF SW (A)	LEAF SW (B)	LOADING MOTOR	MAIN
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Ref.No.	Part No.	Description	Remark
R215	1-249-421-11	CARBON 2.2K 5% 1/4W	
R216	1-249-423-11	CARBON 3.3K 5% 1/4W	
R217	1-249-426-11	CARBON 5.6K 5% 1/4W	
R218	1-247-856-00	CARBON 11K 5% 1/4W	
R219	1-249-411-11	CARBON 330 5% 1/4W	
R220	1-249-410-11	CARBON 270 5% 1/4W	
< SWITCH >			
S210	1-554-303-21	SWITCH, TACTILE (1 (DISC SELECT))	
S211	1-554-303-21	SWITCH, TACTILE (2 (DISC SELECT))	
S212	1-554-303-21	SWITCH, TACTILE (3 (DISC SELECT))	
S213	1-554-303-21	SWITCH, TACTILE (4 (DISC SELECT))	
S214	1-554-303-21	SWITCH, TACTILE (5 (DISC SELECT))	
S215	1-554-303-21	SWITCH, TACTILE (K1 ◀ (AMS))	
S216	1-554-303-21	SWITCH, TACTILE (▶▶ DM (AMS))	
S217	1-554-303-21	SWITCH, TACTILE (▷)	
S218	1-554-303-21	SWITCH, TACTILE (II)	
S219	1-554-303-21	SWITCH, TACTILE (■)	
S220	1-554-303-21	SWITCH, TACTILE (DISC SKIP)	
S221	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)	

*	1-650-510-11	H. P. BOARD	

< JACK >			
CNJ1201	1-569-113-11	JACK, LARGE TYPE (HEADPHONES)	

*	1-640-702-11	LEAF SW (A) BOARD	

< CAPACITOR >			
C544	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
< SWITCH >			
S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
S5	1-571-736-11	SWITCH, LEAF (PLAY)	

Ref.No.	Part No.	Description	Remark
*	1-640-703-11	LEAF SW (B) BOARD	

< CAPACITOR >			
C545	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
< SWITCH >			
S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
S2	1-571-736-11	SWITCH, LEAF (PLAY)	
S3	1-571-736-11	SWITCH, LEAF (REC)	

*	1-639-288-11	LOADING MOTOR BOARD	

< CAPACITOR >			
C705	1-161-375-00	CERAMIC 0.0022uF 20% 50V	

*	A-4365-921-A	MAIN BOARD, COMPLETE (A195, D250)	
*	A-4365-939-A	MAIN BOARD, COMPLETE (G2000)	

< CAPACITOR >			
C1	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C2	1-124-477-11	ELECT 47uF 20% 25V	
C3	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C4	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C5	1-164-159-11	CERAMIC 0.1uF 50V	
C6	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C7	1-124-477-11	ELECT 47uF 20% 25V	
C8	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C9	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C10	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C11	1-124-907-11	ELECT 10uF 20% 50V	
C12	1-124-902-00	ELECT 0.47uF 20% 50V	
C13	1-124-903-11	ELECT 1uF 20% 50V	
C14	1-124-903-11	ELECT 1uF 20% 50V	
C15	1-124-907-11	ELECT 10uF 20% 50V	
C16	1-124-907-11	ELECT 10uF 20% 50V	
C17	1-124-907-11	ELECT 10uF 20% 50V	
C18	1-124-907-11	ELECT 10uF 20% 50V	
C19	1-136-160-00	FILM 0.039uF 5% 50V	
C20	1-136-160-00	FILM 0.039uF 5% 50V	
C21	1-161-046-00	CERAMIC 0.0039uF 10% 25V	

MAIN

Ref. No.	Part No.	Description	Remark		
C22	1-161-046-00	CERAMIC	0.0039uF	10%	25V
C23	1-124-903-11	ELECT	1uF	20%	50V
C24	1-162-294-31	CERAMIC	0.001uF	10%	50V
C25	1-161-327-00	CERAMIC	0.0033uF	30%	16V
C26	1-124-477-11	ELECT	47uF	20%	25V
C27	1-126-962-11	ELECT	3.3uF	20%	50V
C28	1-161-494-00	CERAMIC	0.022uF		25V
C29	1-124-907-11	ELECT	10uF	20%	50V
C30	1-161-494-00	CERAMIC	0.022uF		25V
C31	1-101-005-00	CERAMIC	22000PF		50V
C32	1-162-198-31	CERAMIC	8.2PF	10%	50V
C33	1-161-379-00	CERAMIC	0.01uF	20%	25V
C45	1-161-379-00	CERAMIC	0.01uF	20%	25V
C51	1-102-961-00	CERAMIC	27PF	5%	50V
C52	1-102-961-00	CERAMIC	27PF	5%	50V
C53	1-124-477-11	ELECT	47uF	20%	25V
C54	1-161-379-00	CERAMIC	0.01uF	20%	25V
C55	1-161-379-00	CERAMIC	0.01uF	20%	25V
C56	1-161-379-00	CERAMIC	0.01uF	20%	25V
C57	1-161-379-00	CERAMIC	0.01uF	20%	25V
C58	1-161-379-00	CERAMIC	0.01uF	20%	25V
C61	1-124-925-11	ELECT	2.2uF	20%	100V
C62	1-124-463-00	ELECT	0.1uF	20%	50V
C63	1-161-379-00	CERAMIC	0.01uF	20%	25V
C64	1-161-379-00	CERAMIC	0.01uF	20%	25V
C65	1-124-477-11	ELECT	47uF	20%	25V
C67	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1001	1-124-257-00	ELECT	2.2uF	20%	50V
C1002	1-162-282-31	CERAMIC (A195, D250)	100PF	10%	50V
C1003	1-162-282-31	CERAMIC (A195, D250)	100PF	10%	50V
C1004	1-124-477-11	ELECT (A195, D250)	47uF	20%	25V
C1005	1-161-377-00	CERAMIC (A195, D250)	0.0047uF	20%	16V
C1006	1-161-374-11	CERAMIC (A195, D250)	0.0015uF	20%	50V
C1007	1-124-464-11	ELECT (A195, D250)	0.22uF	20%	50V
C1010	1-124-477-11	ELECT	47uF	20%	25V
C1051	1-124-257-00	ELECT	2.2uF	20%	50V
C1052	1-162-282-31	CERAMIC (A195, D250)	100PF	10%	50V
C1053	1-162-282-31	CERAMIC (A195, D250)	100PF	10%	50V
C1054	1-124-477-11	ELECT (A195, D250)	47uF	20%	25V
C1055	1-161-377-00	CERAMIC (A195, D250)	0.0047uF	20%	16V

Ref. No.	Part No.	Description	Remark		
C1056	1-161-374-11	CERAMIC (A195, D250)	0.0015uF	20%	50V
C1057	1-124-464-11	ELECT (A195, D250)	0.22uF	20%	50V
C1060	1-124-477-11	ELECT	47uF	20%	25V
C1215	1-162-282-31	CERAMIC	100PF	10%	50V
C1216	1-162-195-31	CERAMIC	4.7PF	10%	50V
C1217	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1218	1-124-472-11	ELECT	470uF	20%	10V
C1232	1-126-233-11	ELECT	22uF	20%	50V
C1234	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1265	1-162-282-31	CERAMIC	100PF	10%	50V
C1266	1-162-195-31	CERAMIC	4.7PF	10%	50V
C1267	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1268	1-124-119-00	ELECT	330uF	20%	16V
C1306	1-124-477-11	ELECT	47uF	20%	25V
C1308	1-126-101-11	ELECT	100uF	20%	16V
C1309	1-126-101-11	ELECT	100uF	20%	16V
C1312	1-124-563-11	ELECT	2200uF	20%	25V
C1313	1-126-946-11	ELECT	6800uF	20%	25V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4.7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1319	1-124-463-00	ELECT	0.1uF	20%	50V
C1320	1-124-907-11	ELECT	10uF	20%	50V
C1321	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1322	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1324	1-124-907-11	ELECT	10uF	20%	50V
C1326	1-124-907-11	ELECT	10uF	20%	50V
C1330	1-126-101-11	ELECT	100uF	20%	16V
C1331	1-102-394-11	CERAMIC	0.01uF		250V
C1340	1-124-480-11	ELECT	470uF	20%	25V
C1341	1-124-907-11	ELECT	10uF	20%	50V
C1351	1-124-910-11	ELECT	47uF	20%	50V
C1352	1-126-105-11	ELECT	1000uF	20%	35V
C1361	1-124-910-11	ELECT	47uF	20%	50V

< FILTER >

CF1	1-567-389-11	FILTER, CERAMIC
CF2	1-567-389-11	FILTER, CERAMIC
CF4	1-527-981-00	FILTER, CERAMIC
CF5	1-577-075-11	OSCILLATOR, CERAMIC
CF6	1-760-220-11	FILTER, CERAMIC

< CONNECTOR >

* CN1	1-568-830-11	SOCKET, CONNECTOR 11P
* CN1201	1-537-327-11	TERMINAL BOARD (SPEAKER)
* CN1202	1-564-506-11	PLUG, CONNECTOR 3P
CN1203	1-564-506-11	PLUG, CONNECTOR 3P
CN1204	1-564-510-11	PLUG, CONNECTOR 7P

Ref. No.	Part No.	Description	Remark
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* CN1205	1-564-509-11	PLUG, CONNECTOR 6P	
CN1206	1-568-838-11	SOCKET, CONNECTOR 21P	
* CN1208	1-568-836-11	SOCKET, CONNECTOR 17P	
CN1301	1-564-511-11	PLUG, CONNECTOR 8P	

< DIODE >

D1	8-719-987-63	DIODE	1N4148M
D1201	8-719-987-63	DIODE	1N4148M
D1301	8-719-312-09	DIODE	RBA-402
D1302	8-719-200-82	DIODE	11ES2
D1303	8-719-200-82	DIODE	11ES2

D1304	8-719-200-82	DIODE	11ES2
D1305	8-719-200-82	DIODE	11ES2
D1306	8-719-001-42	DIODE	UZL-11M1
D1307	8-719-200-82	DIODE	11ES2
D1308	8-719-002-60	DIODE	UZL-33L

D1309	8-719-014-66	DIODE	UZP-5.6B
D1310	8-719-987-63	DIODE	1N4148M
D1317	8-719-200-82	DIODE	11ES2
D1318	8-719-200-82	DIODE	11ES2
D1319	8-719-200-82	DIODE	11ES2

D1320	8-719-200-82	DIODE	11ES2
D1321	8-719-200-82	DIODE	11ES2
D1322	8-719-200-82	DIODE	11ES2
D1323	8-719-200-82	DIODE	11ES2
D1324	8-719-200-82	DIODE	11ES2

D1325	8-719-200-82	DIODE	11ES2
D1326	8-719-200-82	DIODE	11ES2
D1327	8-719-200-82	DIODE	11ES2
D1328	8-719-200-82	DIODE	11ES2
D1329	8-719-200-82	DIODE	11ES2

D1330	8-719-200-82	DIODE	11ES2
D1385	8-719-200-82	DIODE	11ES2

< FRONT END >

FE1	1-465-673-11	FRONT END (2 BAND)	
FE2	1-239-634-11	ENCAPSULATED COMPONENT, AM. RF	

< IC >

IC1	8-759-176-03	IC	LA1835
IC51	8-759-175-87	IC	LC7218-ST
IC1001	8-759-634-51	IC	M5218AP (A195, D250)
IC1002	8-759-000-48	IC	MC14052BCP
IC1003	8-759-634-51	IC	M5218AP

IC1202	8-759-634-51	IC	M5218AP
IC1303	8-759-605-00	IC	M5F78M07L
IC1304	8-759-604-95	IC	M5F79M07L
IC1305	8-759-820-13	IC	L78MR06

Ref. No.	Part No.	Description	Remark
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< IFT >

IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	
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< JACK >

* J1001	1-580-691-11	JACK, PIN 2P (PHONO (IN)) (A195, D250)	
* J1001	1-580-691-11	JACK, PIN 2P (VIDEO (IN)) (G2000)	

< COIL >

L1	1-410-688-31	INDUCTOR	1.5mH
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< FILTER >

LPF1	1-239-597-11	FILTER, LOW PASS	
LPF2	1-239-597-11	FILTER, LOW PASS	

< TRANSISTOR >

Q1	8-729-230-99	TRANSISTOR	2SC2669-OY
Q55	8-729-900-61	TRANSISTOR	DTA114ES
Q61	8-729-202-67	TRANSISTOR	2SK246-GR3
Q62	8-729-201-84	TRANSISTOR	2SC3112-B
Q1001	8-729-119-78	TRANSISTOR	2SC2785-HFE

Q1051	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1301	8-729-141-83	TRANSISTOR	2SB1094-LK
Q1302	8-729-209-15	TRANSISTOR	2SD2012

< RESISTOR >

R1	1-249-411-11	CARBON	330	5%	1/4W
R2	1-249-411-11	CARBON	330	5%	1/4W
R3	1-249-409-11	CARBON	220	5%	1/4W
△R4	1-249-402-11	CARBON	56	5%	1/4W F
R5	1-247-891-00	CARBON	330K	5%	1/4W

R6	1-249-411-11	CARBON	330	5%	1/4W
△R9	1-247-807-31	CARBON	100	5%	1/4W F
R10	1-249-437-11	CARBON	47K	5%	1/4W
R12	1-249-429-11	CARBON	10K	5%	1/4W
R13	1-249-442-11	CARBON	510	5%	1/4W

△R14	1-249-403-11	CARBON	68	5%	1/4W F
R16	1-249-429-11	CARBON	10K	5%	1/4W
R17	1-247-842-11	CARBON	3K	5%	1/4W
R18	1-249-429-11	CARBON	10K	5%	1/4W
R19	1-249-441-11	CARBON	100K	5%	1/4W

R20	1-249-435-11	CARBON	33K	5%	1/4W
R21	1-249-441-11	CARBON	100K	5%	1/4W
R22	1-249-437-11	CARBON	47K	5%	1/4W
R23	1-249-399-11	CARBON	33	5%	1/4W
R35	1-249-423-11	CARBON	3.3K	5%	1/4W

R36	1-249-423-11	CARBON	3.3K	5%	1/4W
R45	1-249-426-11	CARBON	5.6K	5%	1/4W

The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

MAIN TC

Ref. No.	Part No.	Description	Remark
R46	1-249-426-11	CARBON	5.6K 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W
R49	1-249-429-11	CARBON	10K 5% 1/4W
△R50	1-249-401-11	CARBON	47 5% 1/4W F
R51	1-249-417-11	CARBON	1K 5% 1/4W
R52	1-249-417-11	CARBON	1K 5% 1/4W
R53	1-249-417-11	CARBON	1K 5% 1/4W
R54	1-249-417-11	CARBON	1K 5% 1/4W
R56	1-249-425-11	CARBON	4.7K 5% 1/4W
R57	1-249-417-11	CARBON	1K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W
△R60	1-247-807-31	CARBON	100 5% 1/4W F
R61	1-249-423-11	CARBON	3.3K 5% 1/4W
R62	1-249-425-11	CARBON	4.7K 5% 1/4W
R63	1-249-414-11	CARBON	560 5% 1/4W
R64	1-249-417-11	CARBON	1K 5% 1/4W
R65	1-249-410-11	CARBON	270 5% 1/4W
R66	1-249-421-11	CARBON	2.2K 5% 1/4W
R67	1-249-425-11	CARBON	4.7K 5% 1/4W
R68	1-249-425-11	CARBON	4.7K 5% 1/4W
R69	1-247-807-31	CARBON	100 5% 1/4W
R1001	1-249-417-11	CARBON	1K 5% 1/4W
R1002	1-249-437-11	CARBON (A195, D250)	47K 5% 1/4W
R1003	1-249-416-11	CARBON (A195, D250)	820 5% 1/4W
R1004	1-247-897-11	CARBON (A195, D250)	560K 5% 1/4W
R1005	1-249-437-11	CARBON (A195, D250)	47K 5% 1/4W
R1006	1-249-409-11	CARBON (A195, D250)	220 5% 1/4W
R1007	1-249-441-11	CARBON	100K 5% 1/4W
R1010	1-249-417-11	CARBON	1K 5% 1/4W
R1016	1-249-437-11	CARBON	47K 5% 1/4W
R1017	1-249-437-11	CARBON	47K 5% 1/4W
R1021	1-249-434-11	CARBON	27K 5% 1/4W
R1023	1-249-434-11	CARBON	27K 5% 1/4W
R1034	1-249-425-11	CARBON	4.7K 5% 1/4W
R1035	1-249-433-11	CARBON	22K 5% 1/4W
R1036	1-249-425-11	CARBON	4.7K 5% 1/4W
R1037	1-249-437-11	CARBON	47K 5% 1/4W
R1051	1-249-417-11	CARBON	1K 5% 1/4W
R1052	1-249-437-11	CARBON (A195, D250)	47K 5% 1/4W
R1053	1-249-416-11	CARBON (A195, D250)	820 5% 1/4W
R1054	1-247-897-11	CARBON (A195, D250)	560K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R1055	1-249-437-11	CARBON (A195, D250)	47K 5% 1/4W
R1056	1-249-409-11	CARBON (A195, D250)	220 5% 1/4W
R1057	1-249-441-11	CARBON	100K 5% 1/4W
R1060	1-249-417-11	CARBON	1K 5% 1/4W
R1071	1-249-434-11	CARBON	27K 5% 1/4W
R1073	1-249-434-11	CARBON	27K 5% 1/4W
R1085	1-249-433-11	CARBON	22K 5% 1/4W
R1087	1-249-437-11	CARBON	47K 5% 1/4W
R1210	1-249-433-11	CARBON	22K 5% 1/4W
R1211	1-247-901-11	CARBON	820K 5% 1/4W
R1212	1-249-399-11	CARBON	33 5% 1/4W
R1214	1-249-429-11	CARBON	10K 5% 1/4W
R1260	1-249-433-11	CARBON	22K 5% 1/4W
R1261	1-247-901-11	CARBON	820K 5% 1/4W
R1262	1-249-399-11	CARBON	33 5% 1/4W
R1263	1-247-807-31	CARBON	100 5% 1/4W
R1303	1-249-421-11	CARBON	2.2K 5% 1/4W
R1304	1-249-425-11	CARBON	4.7K 5% 1/4W
R1321	1-249-417-11	CARBON	1K 5% 1/4W
R1322	1-249-429-11	CARBON	10K 5% 1/4W
R1345	1-249-422-11	CARBON	2.7K 5% 1/4W
< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K	
RV2	1-238-600-11	RES, ADJ, CARBON 10K	
< TERMINAL >			
* TM1	1-537-264-11	TERMINAL BOARD (ANTENNA)	
< VIBRATOR >			
XT51	1-577-126-21	VIBRATOR, CRYSTAL (7.2MHz)	

*	A-4365-787-A	MAIN TC BOARD, COMPLETE (A195, G2000)	
*	A-4365-909-A	MAIN TC BOARD, COMPLETE (A250)	

*	4-942-204-01	PLATE, GROUND	
< CAPACITOR >			
C700	1-162-282-31	CERAMIC	100PF 10% 50V
C701	1-162-290-31	CERAMIC	470PF 10% 50V
C702	1-137-372-11	FILM	0.022uF 5% 50V
C703	1-124-907-11	ELECT	10uF 20% 50V
C704	1-162-292-31	CERAMIC	680PF 10% 50V
C710	1-162-282-31	CERAMIC	100PF 10% 50V
C711	1-162-289-31	CERAMIC	390PF 10% 50V

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Ref. No.	Part No.	Description	Remark		
C712	1-137-372-11	FILM	0.022uF	5%	50V
C713	1-124-907-11	ELECT	10uF	20%	50V
C715	1-124-443-00	ELECT	100uF	20%	10V
C721	1-137-368-11	FILM	0.0047uF	5%	50V
C722	1-124-903-11	ELECT	1uF	20%	50V
C723	1-124-927-11	ELECT	4.7uF	20%	100V
C724	1-137-399-11	FILM	0.1uF	5%	50V
C725	1-124-907-11	ELECT	10uF	20%	50V
C726	1-124-903-11	ELECT	1uF	20%	50V
C727	1-124-902-00	ELECT	0.47uF	20%	50V
C728	1-124-927-11	ELECT	4.7uF	20%	100V
C729	1-162-291-31	CERAMIC	560PF	10%	50V
C730	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C731	1-164-056-11	CERAMIC	27PF	5%	50V
C732	1-101-890-00	CERAMIC	75PF	5%	50V
C733	1-162-288-31	CERAMIC	330PF	10%	50V
C734	1-164-066-11	CERAMIC	68PF	5%	50V
C800	1-162-282-31	CERAMIC	100PF	10%	50V
C801	1-162-290-31	CERAMIC	470PF	10%	50V
C802	1-137-372-11	FILM	0.022uF	5%	50V
C803	1-124-907-11	ELECT	10uF	20%	50V
C804	1-162-292-31	CERAMIC	680PF	10%	50V
C810	1-162-282-31	CERAMIC	100PF	10%	50V
C811	1-162-289-31	CERAMIC	390PF	10%	50V
C812	1-137-372-11	FILM	0.022uF	5%	50V
C813	1-124-907-11	ELECT	10uF	20%	50V
C815	1-124-443-00	ELECT	100uF	20%	10V
C821	1-137-368-11	FILM	0.0047uF	5%	50V
C822	1-124-903-11	ELECT	1uF	20%	50V
C823	1-124-927-11	ELECT	4.7uF	20%	100V
C824	1-137-399-11	FILM	0.1uF	5%	50V
C825	1-124-907-11	ELECT	10uF	20%	50V
C826	1-124-903-11	ELECT	1uF	20%	50V
C827	1-124-902-00	ELECT	0.47uF	20%	50V
C828	1-124-927-11	ELECT	4.7uF	20%	100V
C829	1-162-291-31	CERAMIC	560PF	10%	50V
C830	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C831	1-164-056-11	CERAMIC	27PF	5%	50V
C832	1-101-890-00	CERAMIC	75PF	5%	50V
C833	1-162-288-31	CERAMIC	330PF	10%	50V
C834	1-164-066-11	CERAMIC	68PF	5%	50V
C903	1-124-443-00	ELECT	100uF	20%	10V
C904	1-124-443-00	ELECT	100uF	20%	10V
C905	1-124-443-00	ELECT	100uF	20%	10V
C906	1-124-443-00	ELECT	100uF	20%	10V
C907	1-124-443-00	ELECT	100uF	20%	10V
C908	1-124-443-00	ELECT	100uF	20%	10V
C909	1-124-907-11	ELECT	10uF	20%	50V
C910	1-124-907-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C913	1-124-927-11	ELECT	4.7uF	20%	100V
C915	1-126-933-11	ELECT	100uF	20%	16V
C920	1-161-379-00	CERAMIC	0.01uF	20%	25V
C921	1-124-925-11	ELECT	2.2uF	20%	100V
C922	1-137-460-91	FILM	0.0082uF	5%	100V
C923	1-124-925-11	ELECT	2.2uF	20%	100V
C924	1-137-438-11	FILM	0.0082uF	5%	50V
C925	1-161-329-00	CERAMIC	0.0068uF	30%	16V
C926	1-137-436-11	FILM	0.0039uF	5%	50V
C927	1-137-436-11	FILM	0.0039uF	5%	50V
C928	1-137-399-11	FILM	0.1uF	5%	50V
C929	1-124-120-11	ELECT	220uF	20%	25V
C931	1-124-120-11	ELECT	220uF	20%	25V
C942	1-124-927-11	ELECT	4.7uF	20%	100V
C943	1-124-903-11	ELECT	1uF	20%	50V
C944	1-124-907-11	ELECT	10uF	20%	50V
C945	1-161-379-00	CERAMIC	0.01uF	20%	25V
C946	1-124-925-11	ELECT	2.2uF	20%	100V

< CONNECTOR >

* CN901	1-564-507-11	PLUG, CONNECTOR 4P
* CN902	1-564-508-11	PLUG, CONNECTOR 5P
CN903	1-564-506-11	PLUG, CONNECTOR 3P
* CN904	1-564-509-11	PLUG, CONNECTOR 6P
CN905	1-564-505-11	PLUG, CONNECTOR 2P
* CN906	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
* CN911	1-560-061-00	PIN, CONNECTOR 3P
* CN912	1-560-060-00	PIN, CONNECTOR 2P (A195, G2000)

< DIODE >

D901	8-719-987-63	DIODE 1N4148M
D902	8-719-987-63	DIODE 1N4148M
D903	8-719-987-63	DIODE 1N4148M
D904	8-719-987-63	DIODE 1N4148M
D905	8-719-987-63	DIODE 1N4148M
D906	8-719-987-63	DIODE 1N4148M
D907	8-719-987-63	DIODE 1N4148M
D908	8-719-987-63	DIODE 1N4148M
D909	8-719-987-63	DIODE 1N4148M

< IC >

IC903	8-759-098-73	IC HA12172NT
IC904	8-759-111-44	IC uPC4570C-1
IC905	8-759-111-44	IC uPC4570C-1
IC906	8-759-143-54	IC uPC1330HA
IC907	8-759-240-81	IC TC4081BP

MAIN TC

Ref. No.	Part No.	Description	Remark
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< COIL >

L701	1-410-780-11	INDUCTOR	27mH
L801	1-410-780-11	INDUCTOR	27mH
L901	1-414-223-11	INDUCTOR	470uH

< TRANSISTOR >

Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q801	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q901	8-729-194-57	TRANSISTOR	2SC945-P
Q902	8-729-194-57	TRANSISTOR	2SC945-P
Q903	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q904	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q905	8-729-119-76	TRANSISTOR	2SA1175-HFE (A195, G2000)
Q906	8-729-900-89	TRANSISTOR	DTC144ES (A195, G2000)
Q907	8-729-900-89	TRANSISTOR	DTC144ES
Q908	8-729-900-89	TRANSISTOR	DTC144ES
Q909	8-729-900-89	TRANSISTOR	DTC144ES
Q910	8-729-900-65	TRANSISTOR	DTA144ES
Q911	8-729-900-65	TRANSISTOR	DTA144ES (A195, G2000)
Q912	8-729-900-89	TRANSISTOR	DTC144ES (A195, G2000)

< RESISTOR >

R701	1-247-889-00	CARBON	270K 5%	1/4W
R702	1-249-404-00	CARBON	82 5%	1/4W
R703	1-247-882-11	CARBON	130K 5%	1/4W
R704	1-247-850-11	CARBON	6.2K 5%	1/4W
R711	1-247-889-00	CARBON	270K 5%	1/4W
R712	1-249-404-00	CARBON	82 5%	1/4W
R713	1-247-882-11	CARBON	130K 5%	1/4W
R714	1-247-850-11	CARBON	6.2K 5%	1/4W
R715	1-249-433-11	CARBON	22K 5%	1/4W
R720	1-249-425-11	CARBON	4.7K 5%	1/4W
R721	1-249-429-11	CARBON	10K 5%	1/4W
R722	1-249-431-11	CARBON	15K 5%	1/4W
R723	1-249-429-11	CARBON	10K 5%	1/4W
R724	1-249-421-11	CARBON	2.2K 5%	1/4W
R725	1-249-428-11	CARBON	8.2K 5%	1/4W
R726	1-247-840-00	CARBON	2.4K 5%	1/4W
R727	1-249-433-11	CARBON	22K 5%	1/4W
R728	1-249-417-11	CARBON	1K 5%	1/4W
R731	1-249-430-11	CARBON	12K 5%	1/4W
R801	1-247-889-00	CARBON	270K 5%	1/4W
R802	1-249-404-00	CARBON	82 5%	1/4W
R803	1-247-882-11	CARBON	130K 5%	1/4W
R804	1-247-850-11	CARBON	6.2K 5%	1/4W
R811	1-247-889-00	CARBON	270K 5%	1/4W
R812	1-249-404-00	CARBON	82 5%	1/4W
R813	1-247-882-11	CARBON	130K 5%	1/4W

Ref. No.	Part No.	Description	Remark
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R814	1-247-850-11	CARBON	6.2K 5%	1/4W
R815	1-249-433-11	CARBON	22K 5%	1/4W
R820	1-249-425-11	CARBON	4.7K 5%	1/4W
R821	1-249-429-11	CARBON	10K 5%	1/4W
R822	1-249-431-11	CARBON	15K 5%	1/4W
R823	1-249-429-11	CARBON	10K 5%	1/4W
R824	1-249-421-11	CARBON	2.2K 5%	1/4W
R825	1-249-428-11	CARBON	8.2K 5%	1/4W
R826	1-247-840-00	CARBON	2.4K 5%	1/4W
R827	1-249-433-11	CARBON	22K 5%	1/4W
R828	1-249-417-11	CARBON	1K 5%	1/4W
R831	1-249-430-11	CARBON	12K 5%	1/4W
R902	1-249-389-11	CARBON	4.7 5%	1/4W
R903	1-249-413-11	CARBON	470 5%	1/4W
R904	1-249-413-11	CARBON	470 5%	1/4W
R905	1-249-413-11	CARBON	470 5%	1/4W
R906	1-249-413-11	CARBON	470 5%	1/4W
R911	1-215-451-00	METAL	18K 1%	1/6W
R912	1-249-440-11	CARBON	82K 5%	1/4W
R913	1-247-862-11	CARBON	20K 5%	1/4W
R914	1-249-437-11	CARBON	47K 5%	1/4W
	(A195, G2000)			
R915	1-249-437-11	CARBON	47K 5%	1/4W
R916	1-249-437-11	CARBON	47K 5%	1/4W
R917	1-247-864-11	CARBON	24K 5%	1/4W
R918	1-249-437-11	CARBON	47K 5%	1/4W
R919	1-249-433-11	CARBON	22K 5%	1/4W
R920	1-249-429-11	CARBON	10K 5%	1/4W
R921	1-249-424-11	CARBON	3.9K 5%	1/4W
R922	1-249-389-11	CARBON	4.7 5%	1/4W
R923	1-249-434-11	CARBON	27K 5%	1/4W
R924	1-249-434-11	CARBON	27K 5%	1/4W
R925	1-249-429-11	CARBON	10K 5%	1/4W
R926	1-249-389-11	CARBON	4.7 5%	1/4W
△R931	1-215-905-11	METAL OXIDE	10 5%	3W F
R932	1-249-426-11	CARBON	5.6K 5%	1/4W
	(A195, G2000)			
R932	1-249-427-11	CARBON	6.8K 5%	1/4W (D250)
R933	1-249-418-11	CARBON	1.2K 5%	1/4W (D250)
R933	1-249-442-11	CARBON	510 5%	1/4W
	(A195, G2000)			
R934	1-249-441-11	CARBON	100K 5%	1/4W
	(A195, G2000)			
R935	1-249-441-11	CARBON	100K 5%	1/4W
	(A195, G2000)			
R936	1-249-429-11	CARBON	10K 5%	1/4W
	(A195, G2000)			
R941	1-249-436-11	CARBON	39K 5%	1/4W
R942	1-249-433-11	CARBON	22K 5%	1/4W
R943	1-249-436-11	CARBON	39K 5%	1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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ACCESSORIES & PACKING MATERIALS

Ref. No. Part No. Description Remark

IC1201 8-759-156-00 IC TA8221AH

< RESISTOR >

R1201	1-249-417-11	CARBON	1K	5%	1/4W
R1203	1-249-413-11	CARBON	470	5%	1/4W
R1218	1-249-385-11	CARBON	2.2	5%	1/6W
R1219	1-249-385-11	CARBON	2.2	5%	1/6W
R1251	1-249-417-11	CARBON	1K	5%	1/4W

R1253	1-249-413-11	CARBON	470	5%	1/4W
R1268	1-249-385-11	CARBON	2.2	5%	1/6W
R1269	1-249-385-11	CARBON	2.2	5%	1/6W

* 1-650-511-11 SW BOARD

< CONNECTOR >

* CN951 1-568-942-11 PIN, CONNECTOR 4P

< SWITCH >

S951 1-692-785-11 SWITCH, PUSH (3 KEY)
(DOLBY NR/TAPE SELECT/DUBBING SPEED)
(A195, G2000)

S951 1-692-787-11 SWITCH, PUSH (2 KEY)
(DOLBY NR/TAPE SELECT) (D250)

* 1-638-729-11 TABLE MOTOR BOARD

< CAPACITOR >

C704 1-161-375-00 CERAMIC 0.0022uF 20% 50V

< CONNECTOR >

* CN707 1-573-044-11 SOCKET, CONNECTOR 5P

< PHOTO SENSOR >

D701 8-719-970-19 PHOTO SENSOR GP-1A521

< RESISTOR >

R701 1-249-416-11 CARBON 820 5% 1/4W

58 1-690-708-11 CORD (WITH CONNECTOR)

* 107 1-452-538-11 MAGNET

158 1-765-195-11 WIRE (FLAT TYPE) (7 CORE)

167 1-537-645-11 JUMPER, FILM (WITH TERMINAL)

169 1-590-849-11 WIRE, FLAT TYPE (5 CORE)

△201 8-848-144-11 DEVICE, OPTICAL KSS-240A

202 1-575-001-11 WIRE, FLAT TYPE (12 CORE)

△F1301 1-576-108-11 FUSE (4A/125V)

△F1302 1-576-108-11 FUSE (4A/125V)

HE1 1-543-673-11 HEAD, MAGNETIC (ERASE) (DECK B)

HP1 1-543-319-11 HEAD, MAGNETIC (PB) (DECK A)

HRP1 1-543-319-11 HEAD, MAGNETIC (REC/PB) (DECK B)

M101 X-4917-504-1 MOTOR ASSY (SLED)

M102 X-4917-523-4 BASE (OUTSERT) ASSY (SPINDLE MOTOR)

M701 A-4604-849-A MOTOR ASSY, ROTARY

M702 A-4604-847-A MOTOR ASSY, LOADING

M901 X-3362-377-1 MOTOR (WH) ASSY

S701 1-572-713-11 SWITCH, PUSH (WITH CONNECTOR)

△S1301 1-572-267-61 SWITCH, PUSH (AC POWER) (1 KEY) (POWER)

HARDWARE LIST

#1 7-621-255-15 SCREW +P 2X3

#2 7-621-775-20 SCREW +B 2.6X5

#3 7-623-921-01 RING, RETAINING, CAPSTAN

#4 7-682-554-04 SCREW +B 3X25

#5 7-685-650-79 SCREW +BVTP 3X16 TYPE2 N-S

#6 7-685-103-19 SCREW +P 2X5 TYPE2 NON-SLIT

#7 7-685-133-19 SCREW +P 2.6X6 TYPE2

#8 7-682-961-01 SCREW +PSW 4X8

#9 7-685-135-19 SCREW +BTP 2.6X10 TYPE2 N-S

#10 7-685-136-19 SCREW +P 2.6X12 TYPE2 NON-SLIT

#11 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S

#12 7-685-647-79 SCREW +BVTP 3X10 TYPE2 N-S

#13 7-688-001-01 W 2, SMALL

#14 7-621-849-00 SCREW, TAPPING

#15 7-682-547-09 SCREW +BVTT 3X6 (S)

#16 7-682-548-04 SCREW +BVTT 3X8 (S)

#17 7-685-880-01 SCREW +BVTT 4X6

The components identified by
mark △ or dotted line with
mark △ are critical for
safety. Replace only with
part number specified.

Les composants identifiés
par une marque △ sont
critiques pour la sécurité.
Ne les remplacer que par une pièce
portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	

		1-467-430-11 COMMANDER, STANDARD (RM-S221)	
		2-181-754-21 COVER (MLY), BATTERY (For RM-S221)	
*		3-376-136-01 CUSHION (HALF)	
*		4-963-173-01 CUSHION	

SS-D255/G2000

SERVICE MANUAL

US Model
Canadian Model

SPECIFICATIONS

Speaker System	2-way speaker system (SS-G2000) 3-way speaker system (SS-D255)
Mass	Approx. 3 kg PC speaker (6 lb 10 oz)
Dimensions	Approx. 220 × 395 × 180 mm (8 ³ / ₄ × 15 ⁵ / ₈ × 7 ¹ / ₈ inches) (w/h/d, including projections)

Design and specifications are subject to change without notice.



Photo: SS-G2000

SS-D255 is the speaker system in LBT-D150 and LBT-D250.

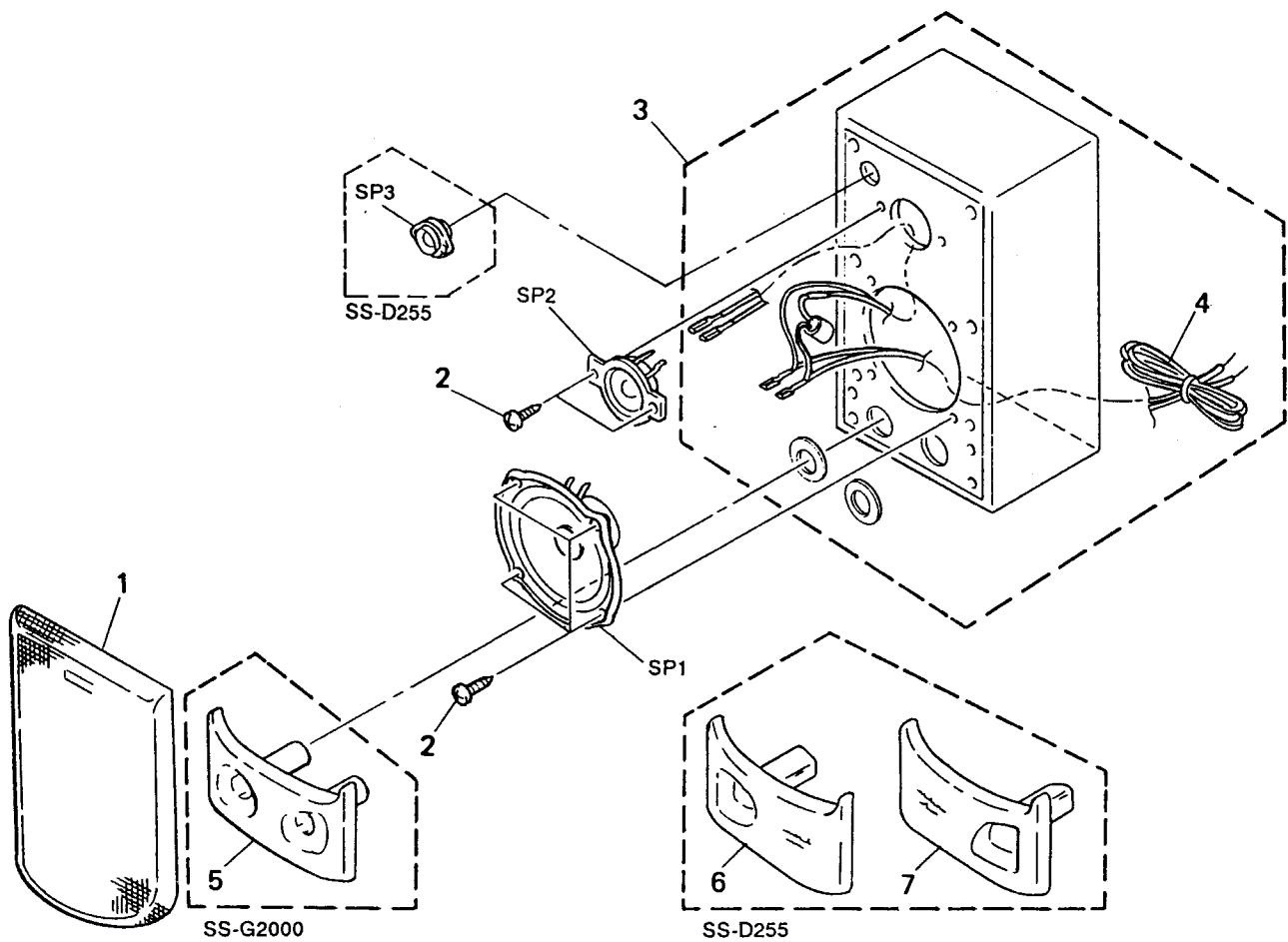
SS-G2000 is the speaker system in LBT-G1000, LBT-A190, LBT-G2000 and LBT-A195.

SPEAKER SYSTEM
SONY®

EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark
1	X-4944-220-1	FRAME ASSY, GRILLE	
2	4-874-614-61	SCREW (M3. 5X16)	
* 3	A-4353-685-A	CABINET ASSY, SPEAKER (G2000)	
* 3	A-4353-678-A	CABINET ASSY, SPEAKER (D255)	
4	1-575-696-11	CORD, SPEAKER (WITH(C))	
* 5	X-4944-221-1	DUCT ASSY, ORNAMENTAL (G2000)	
* 6	X-4944-224-1	DUCT (L) ASSY, ORNAMENTAL (D255)	
* 7	X-4944-225-1	DUCT (R) ASSY, ORNAMENTAL (D255)	
SP1	1-504-173-11	SPEAKER (16cm)	
SP2	1-504-174-11	SPEAKER (5cm)	
SP3	1-544-453-21	SPEAKER (2cm) (D255)	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	

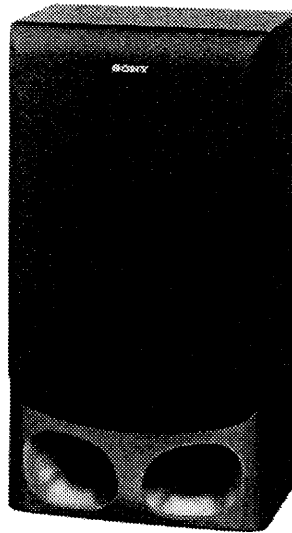
*	4-964-535-01	CUSHION	

SS-D195

SERVICE MANUAL

E Model

This set is the speaker system in
LBT-A195.



SPECIFICATIONS

Speaker system	: 2-way speaker system
Mass	: Approx. 4.3 kg per speaker
Dimensions	: Approx. 260 × 475 × 185mm (w/h/d, including projections)

Design and specifications are subject to change without notice.

SPEAKER SYSTEM
SONY®

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

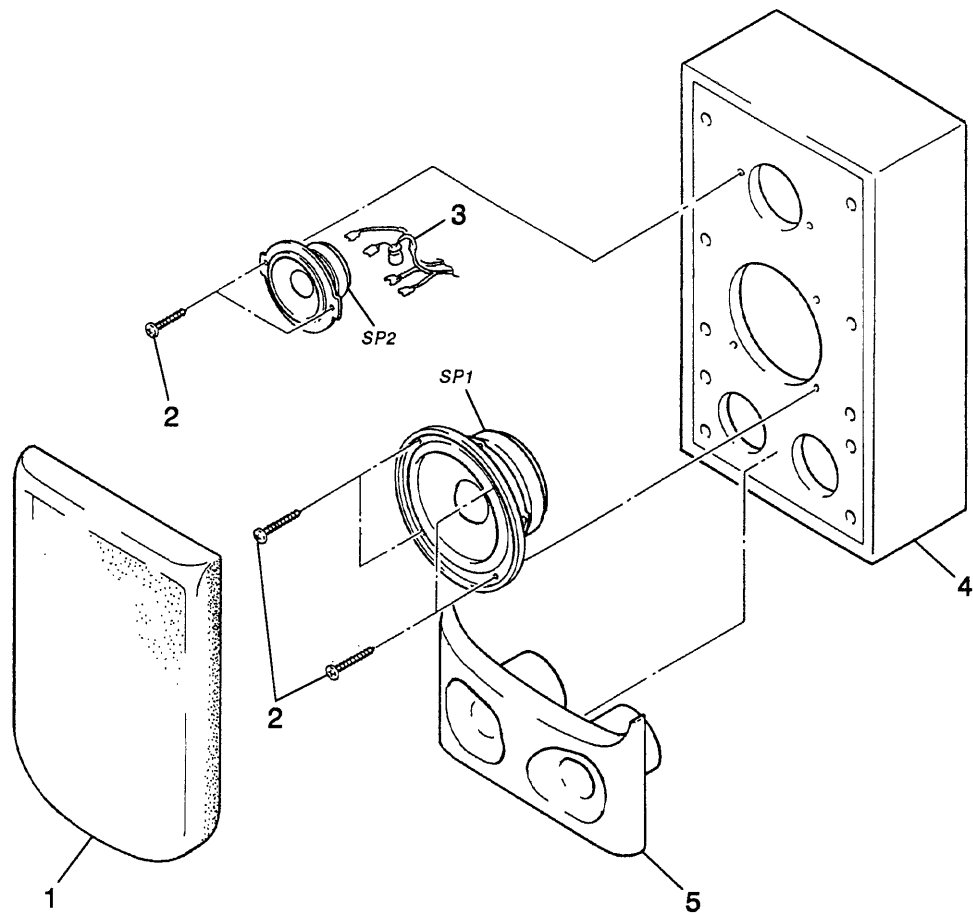
9-959-701-11

English
94G0213-1D
Printed in Japan
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Published by Home A&V Products Div.
Quality Engineering Dept.

EXPLODED VIEW AND PARTS LIST

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-4945-157-1	FRAME ASSY, GRILLE				ACCESSORIES & PACKING MATERIALS	
2	4-874-614-61	SCREW M3. 5X16				*****	
3	1-696-794-11	CORD, SPEAKER					
* 4	A-4361-096-A	CABINET ASSY, SPEAKER		*	4-964-536-01	CUSHION	
5	X-4944-587-1	DUCT ASSY, ORNAMENTAL					
SP1	1-504-640-11	SPEAKER (16cm)					
SP2	1-504-641-11	SPEAKER (6cm)					

PS-LX56/LX56P

SERVICE MANUAL

Ver 1.1 2001.07

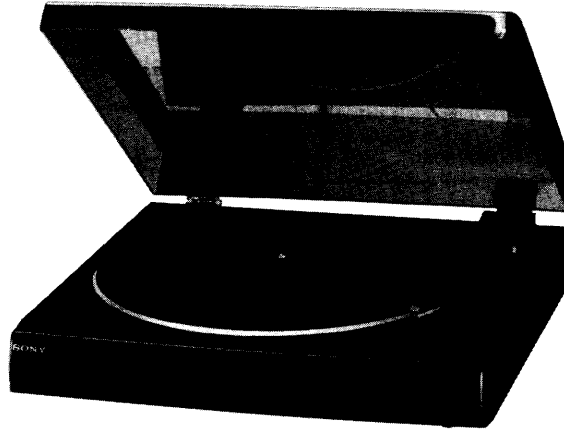


PHOTO : PS-LX56

PS-LX56/LX56P are the turntable section in LBT-A190/A195/A290/A290K/A295/A390/A390K/A395/A490/A490K/A495/D150/D250/D550/G1000/G2000.

US Model
Canadian Model
PX Model
Tourist Model
PS-LX56
AEP Model
E Model
Australian Model
PS-LX56/LX56P
UK Model
PS-LX56P

SPECIFICATIONS

Turntable

Platter 30cm (12 in.)
Motor DC servo motor
Drive system Belt drive
Speed 33 1/3 rpm/45 rpm switchable
Wow and flutter 0.2% (WRMS)
Signal-to-noise ratio 60 dB (DIN-B)
Automatic system Return, reject

Tonearm

Type Dynamically balanced
Pivot-to-stylus length 203 mm (8 in.)
Overall arm length 235 mm (9 1/4 in.)

Cartridge

Type Moving magnet type
Frequency response 20 Hz-20kHz
Stylus CN-234

General

Dimensions 355 × 94 × 345 mm(w/h/d)
(14 × 3 3/4 × 13 5/8 inches)
Weight Approx. 2.5 kg (5 lb 8 oz)
Power requirement US and Canadian model : 120V AC, 60Hz
European model : 220-230V AC, 50/60Hz
Australian model : 240V AC, 50Hz
Model for other countries : 110-120V/220-240V
adjustable with the
voltage selector
AC, 50/60Hz

Power consumption 2 W
Accessory supplied 45-rpm adaptor (1)
Optional accessories Replacement stylus CN-234
Stat spray XP-C10
Cleaner XP-C1, XP-C2

Turntable

Platter 30 cm
Tone arm type Dynamically balanced
Cartridge type Moving magnet type
Stylus Sony CN-234 (0.6 mil diamond)
Mass Approx. 2.3 kg (5 lb 1 oz)
Dimensions Approx. 355 x 95 x 345 mm
(14 x 3 3/4 x 13 5/8 inches)
(w/h/d, including projections)

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

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2001G0200-1
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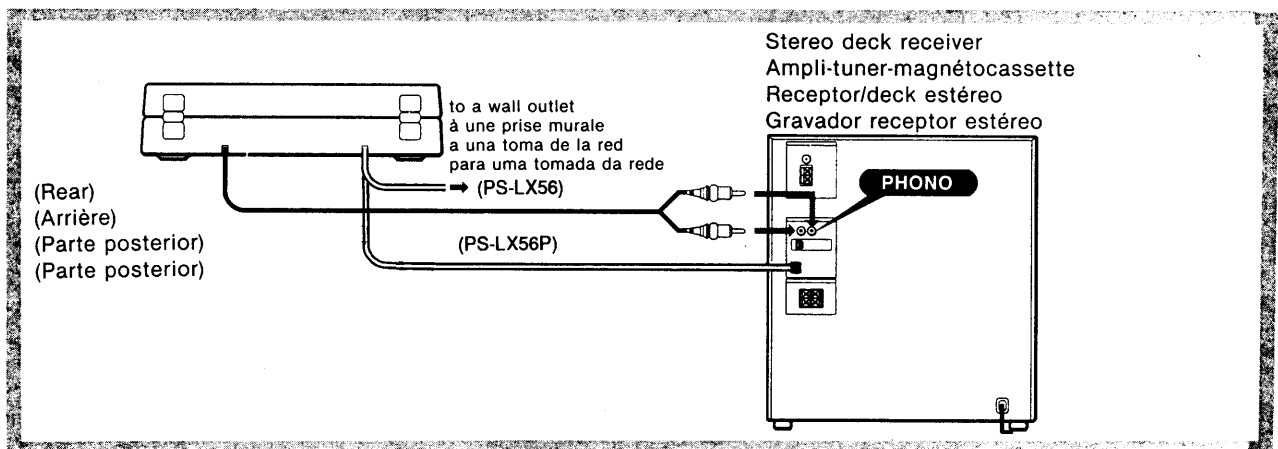
Sony Corporation
Home Audio Company
Shinagawa Tec Service Manual Production Group

STEREO TURNTABLE SYSTEM
SONY®

Connections

Note

Connect the red plug to the right-channel jack (R), and the white plug to the left-channel jack (L).



Notes on installation

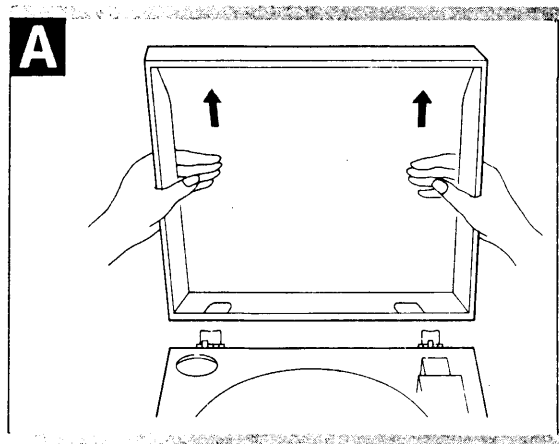
- Place the turntable on a level surface.
- Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
- Place the turntable where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
- Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.

Nota

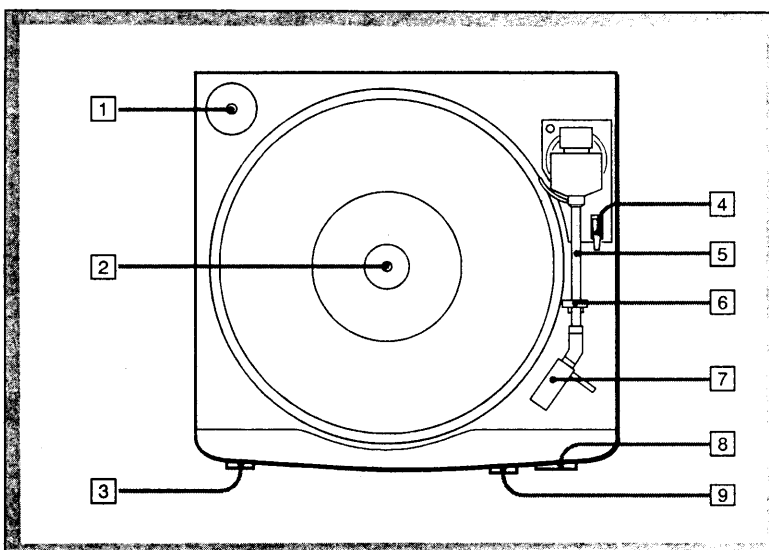
Conecte la clavija roja a la toma del canal derecho (R), y la blanca a la del canal izquierdo (L).

To remove the dust cover A

Open the cover fully and pull it up.

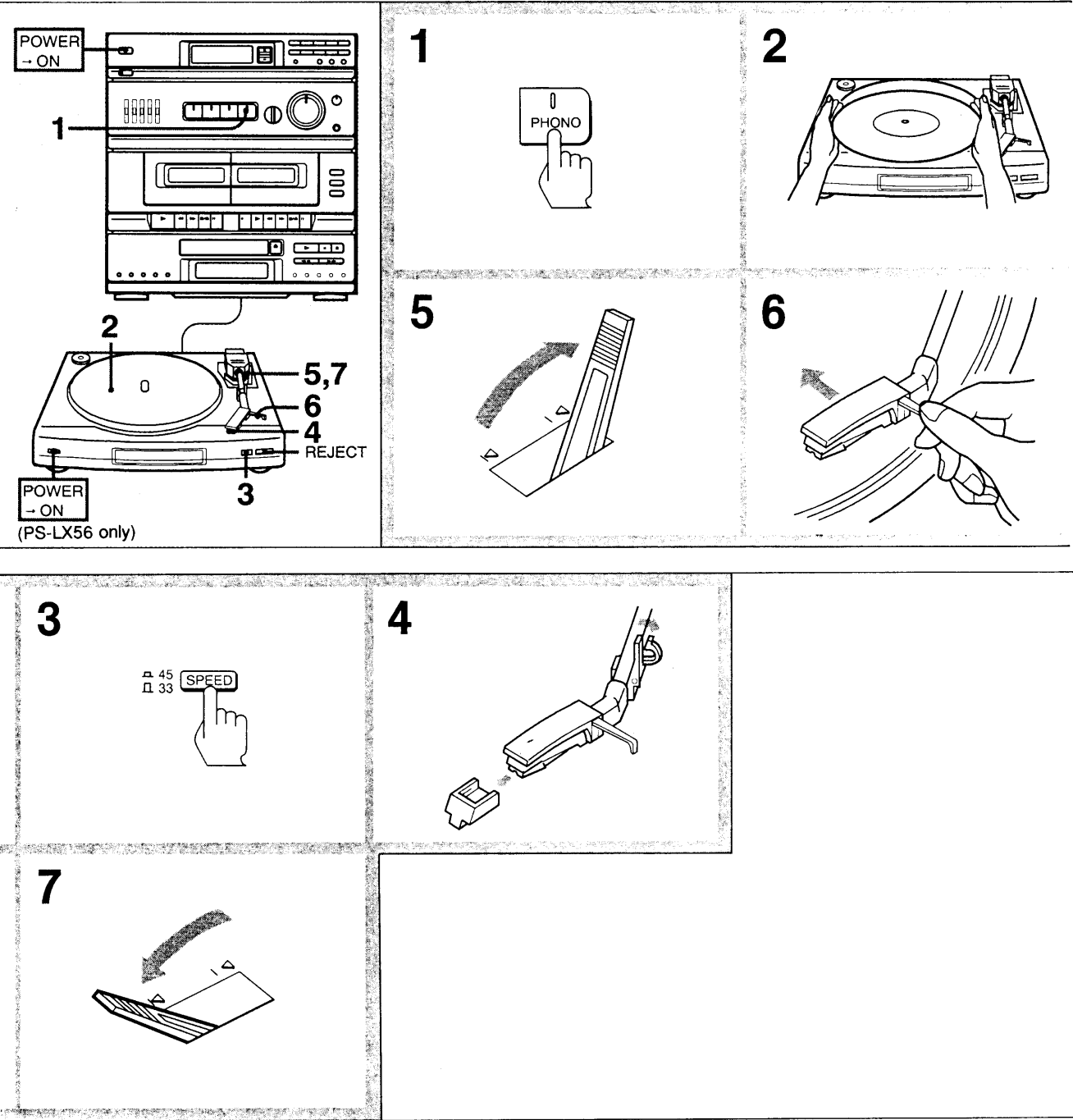


Location of Controls





- 1 45-rpm adaptor
- 2 Centre spindle
- 3 POWER switch (PS-LX56)
- 4 Cueing lever
- 5 Tonearm
- 6 Armrest
- 7 Cartridge
- 8 REJECT button
- 9 Speed selector

Playing Records



When the record is played to the end, the tonearm returns to the armrest and the turntable stops.

To stop during play, press REJECT.

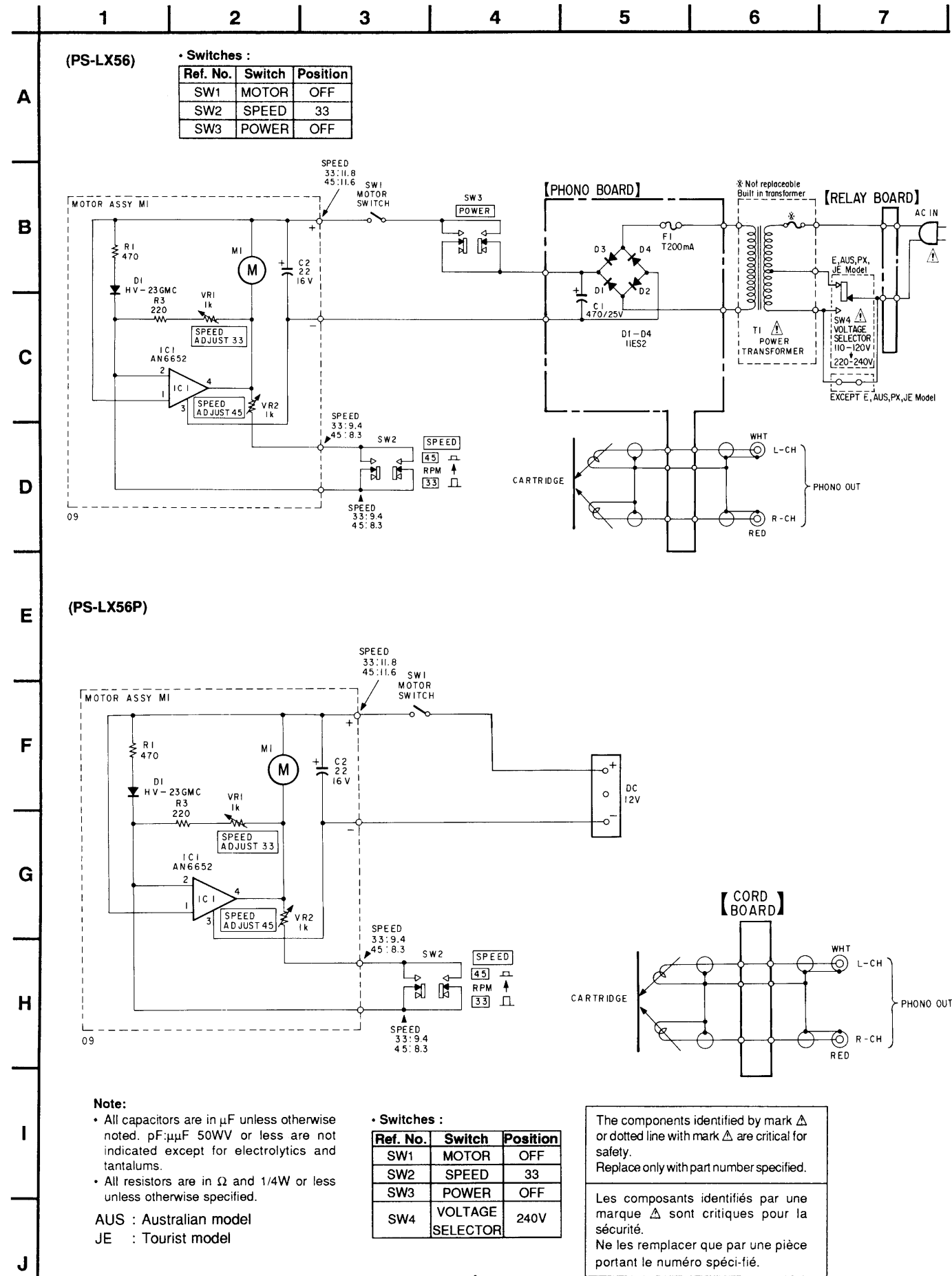
To play a different part of the record
Lift the tonearm by setting the cueing level to , move the tonearm by hand to the desired point, then set the cueing lever to .

To play a 17-cm record
Use the supplied adaptor

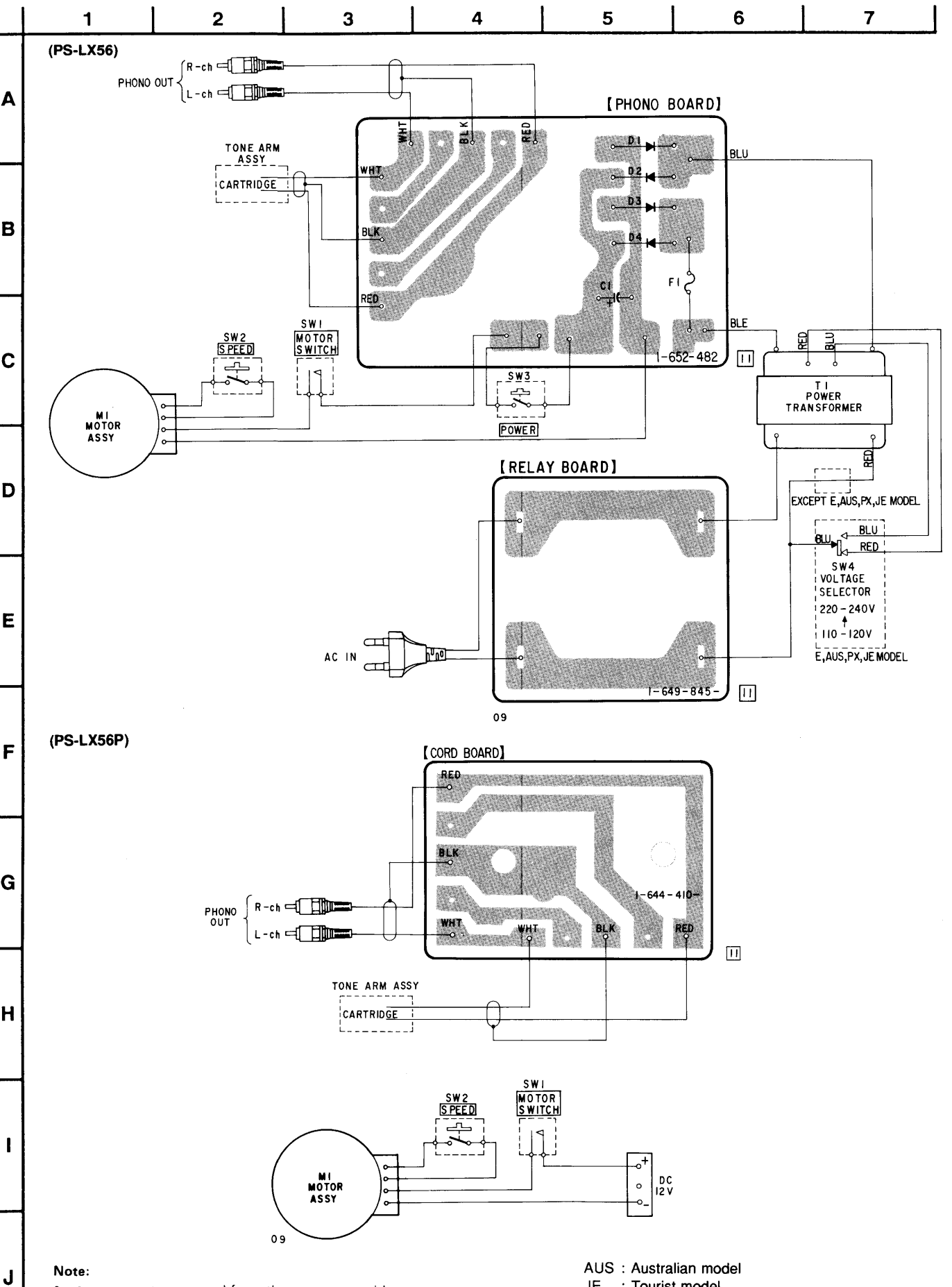
If the tonearm moves outward when you move it close to the centre
Do not resist this movement, as it may damage the automatic return mechanism.

If the tonearm does not return to its armrest
Press REJECT.

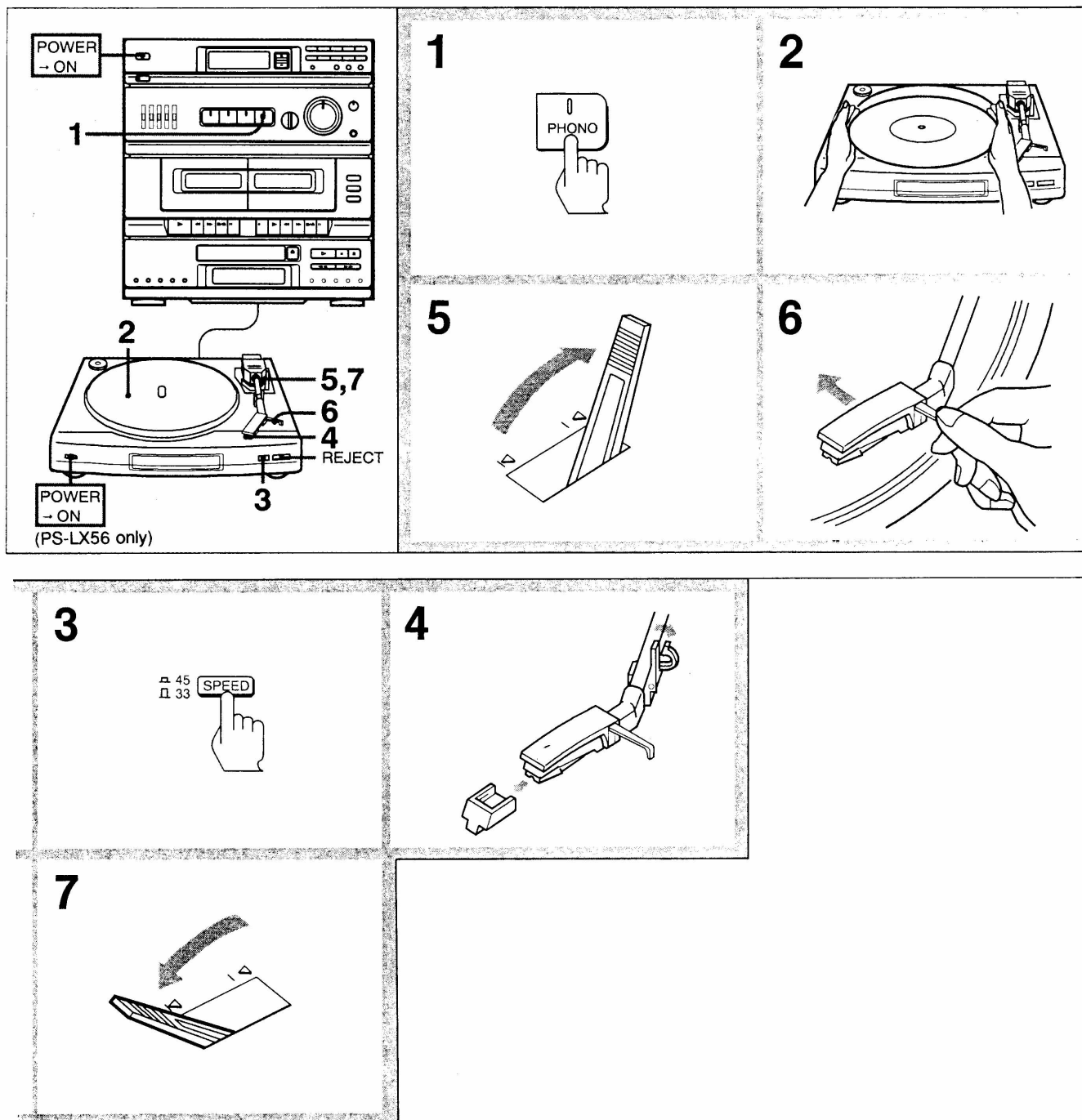
SCHEMATIC DIAGRAMS



WIRING DIAGRAMS



Playing Records



When the record is played to the end, the tonearm returns to the armrest and the turntable stops.

To stop during play, press REJECT.

To play a different part of the record

Lift the tonearm by setting the cueing level to ▽, move the tonearm by hand to the desired point, then set the cueing lever to ▽.

To play a 17-cm record

Use the supplied adaptor

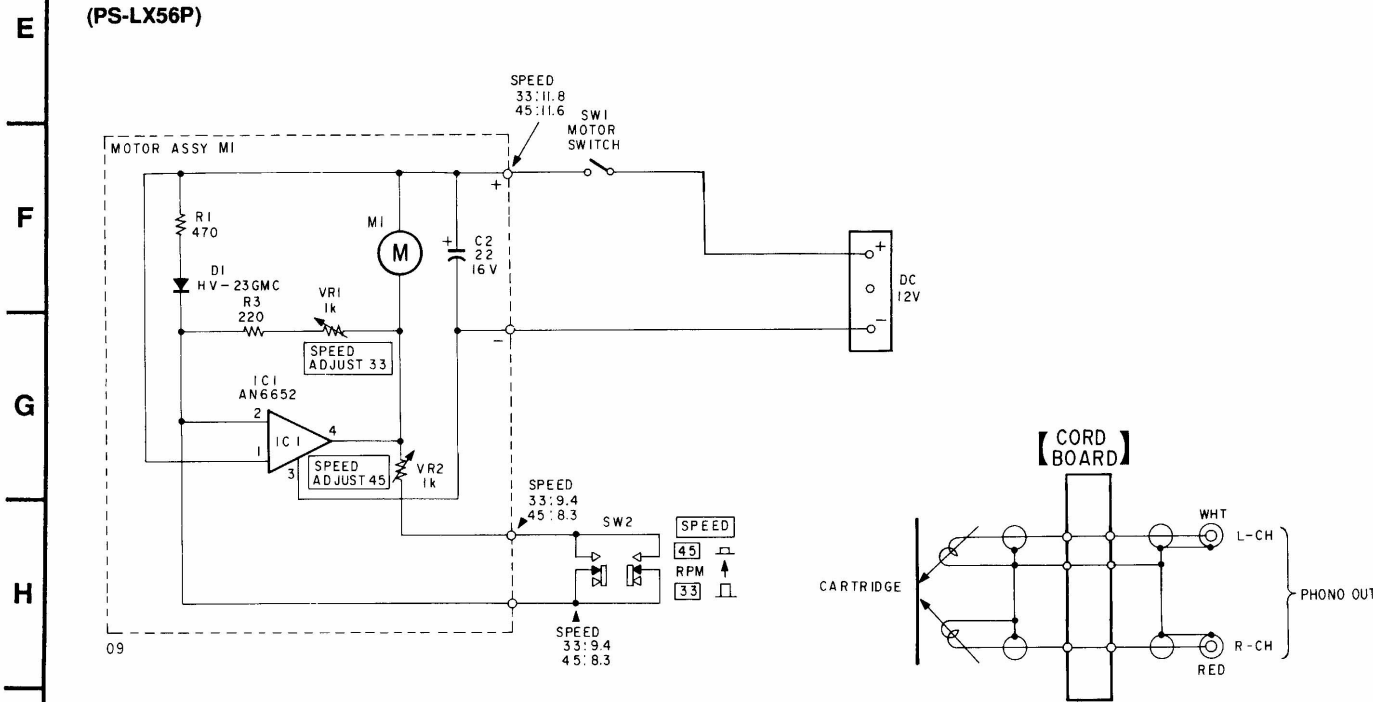
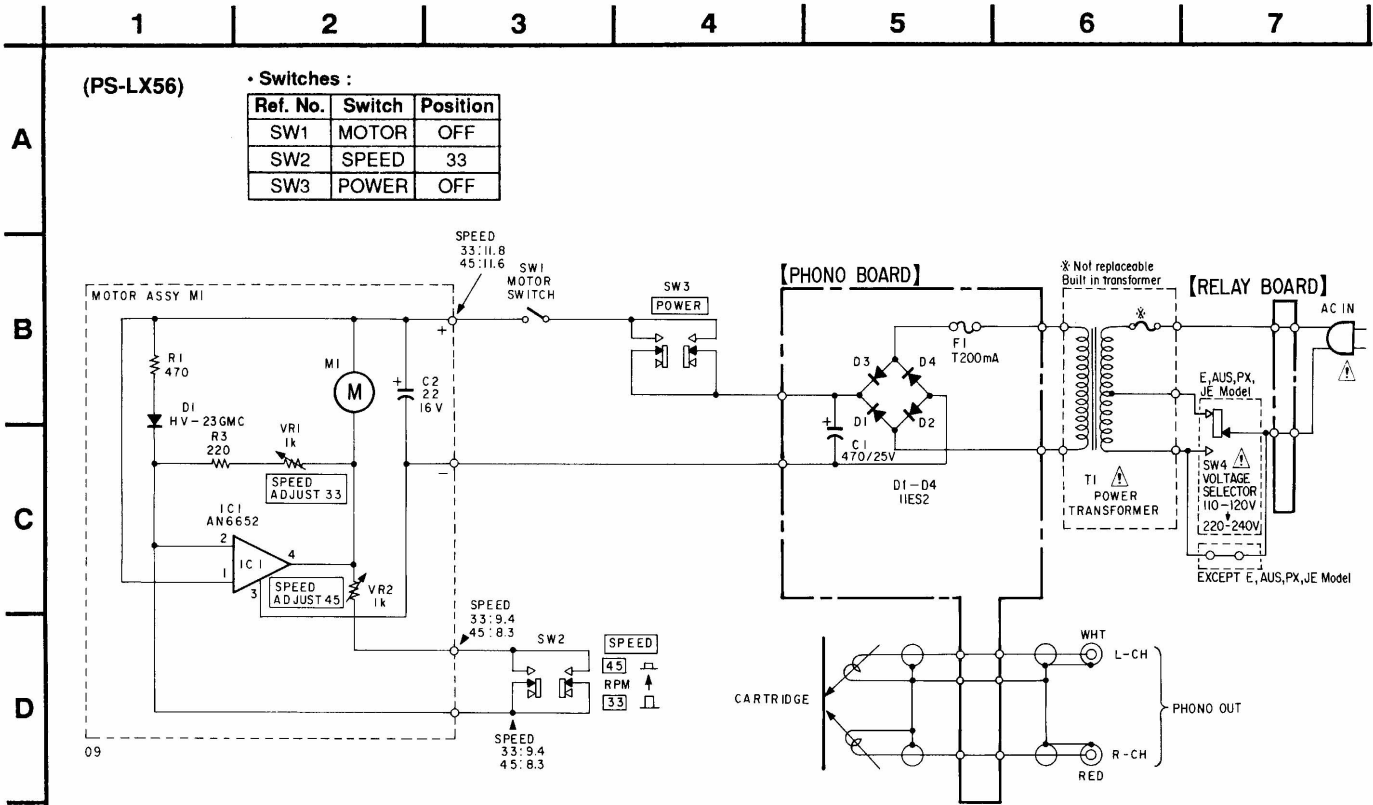
If the tonearm moves outward when you move it close to the centre

Do not resist this movement, as it may damage the automatic return mechanism.

If the tonearm does not return to its armrest

Press REJECT.

SCHEMATIC DIAGRAMS



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50VV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

AUS : Australian model
JE : Tourist model

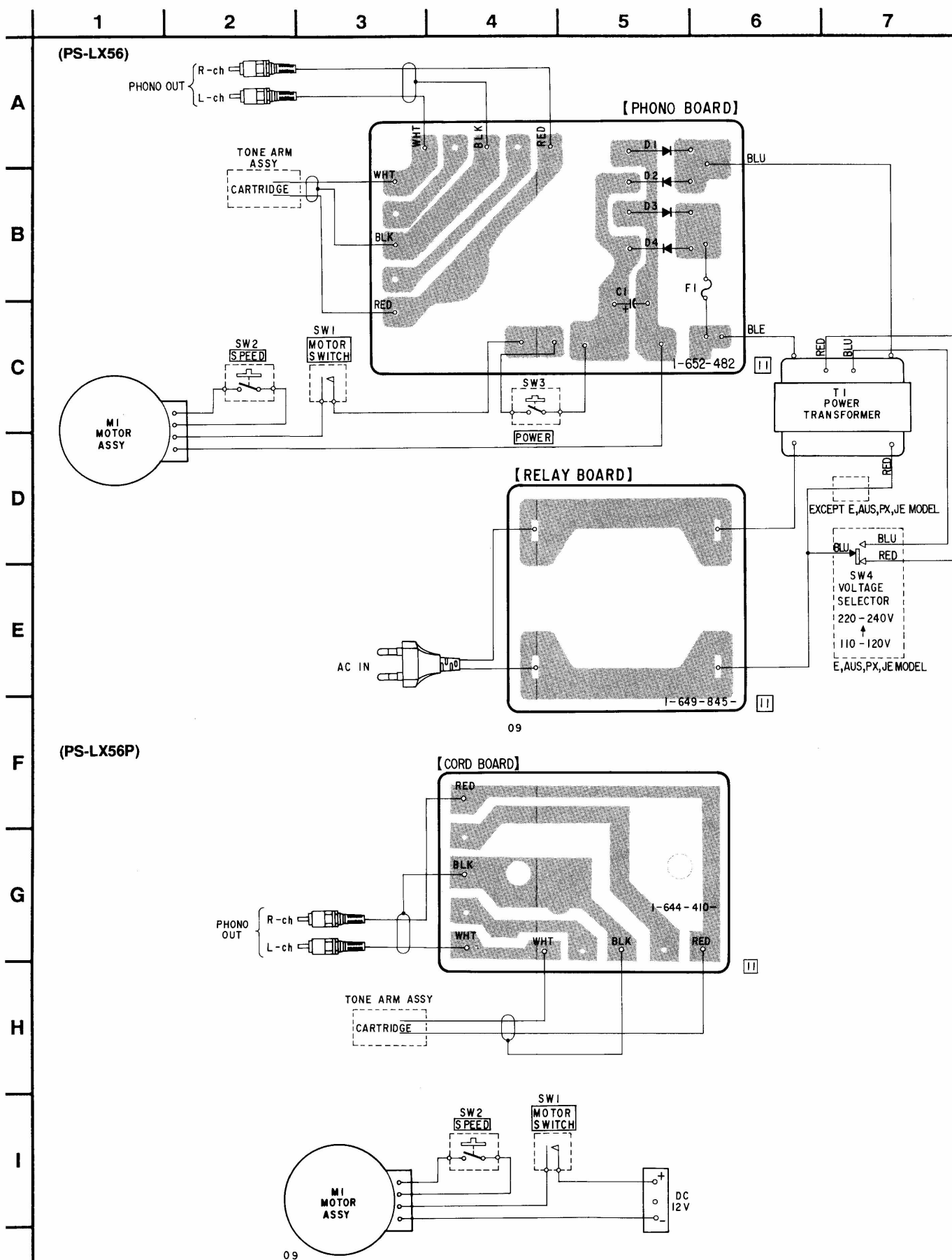
• Switches :

Ref. No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF
SW4	VOLTAGE SELECTOR	240V

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spéci-fié.

WIRING DIAGRAMS



Note:

● ○ — : parts extracted from the component side.

AUS : Australian model

JE : Tourist model

CORD

PHONO

RELAY

EXPLODED VIEW

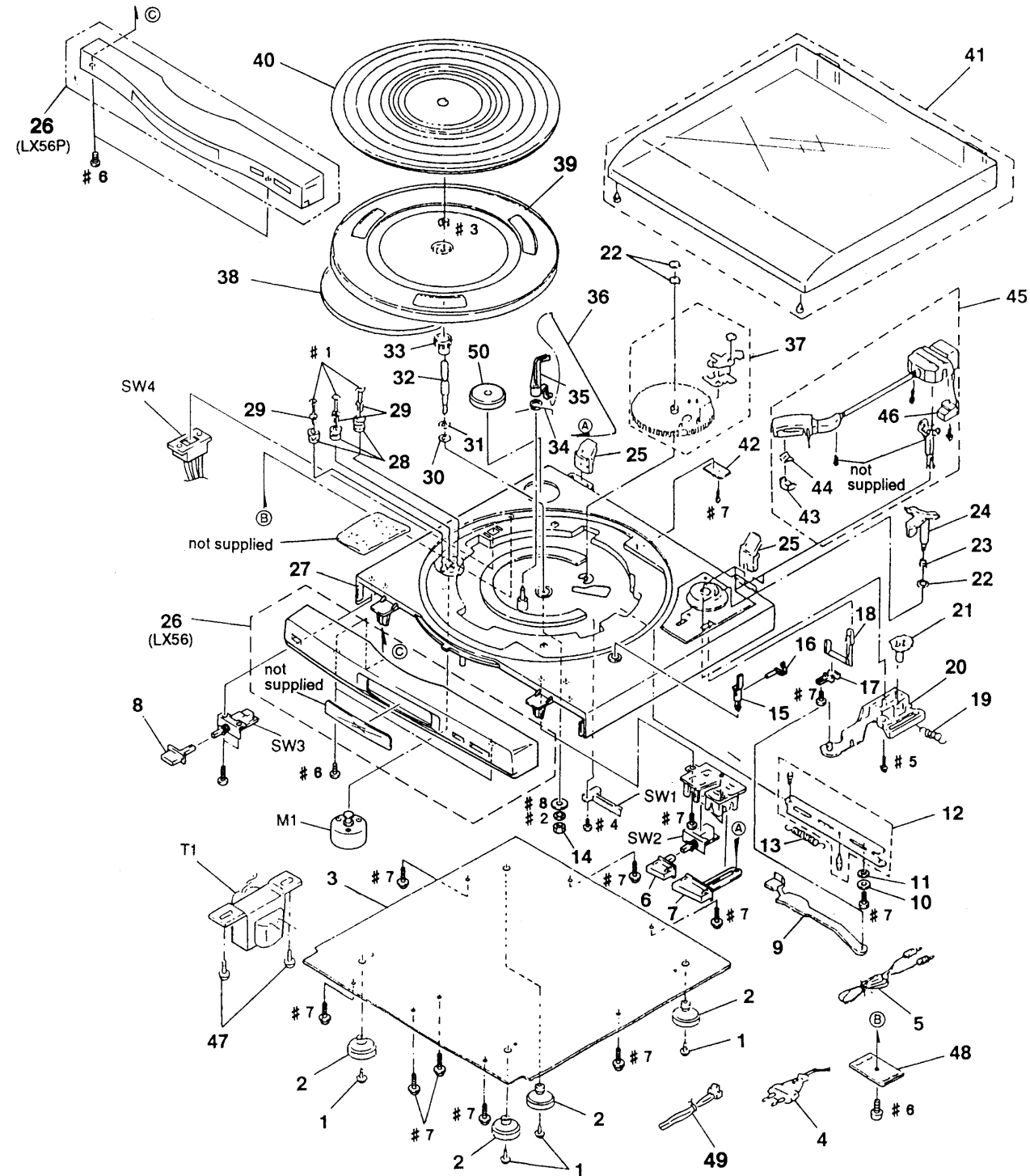
NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- AUS : Australian model
- CND : Canadian model
- EE : East European model
- IT : Italian model
- MX : Mexican model
- EA : Saudi Arabia model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark
1	4-950-497-01	FOOT SEAT	
2	4-950-490-01	PLASTIC STAND	
* 3	4-961-804-01	BUTTON BOARD	
Δ 4	1-575-651-61	CORD, AC (LX56: AEP, EA, EE, IT, MX, MY, CIS, SP)	
Δ 4	1-575-975-11	CORD, AC (LX56: CND, US)	
Δ 4	1-590-074-11	CORD, AC (LX56: E)	
Δ 4	1-690-608-11	CORD, AC (LX56: AUS)	
Δ 4	1-696-570-21	CORD, AC (LX56: UK)	
5	1-555-116-11	CORD, PHONO...(BLACK)	
6	4-964-177-01	KNOB SPEED...(BLACK)	
6	4-964-177-11	KNOB SPEED	
	...(LX56:SILVER, SILVER METALLIC)		
7	4-964-178-01	KNOB REJECT...(BLACK)	
7	4-964-178-11	KNOB REJECT	
	...(LX56:SILVER, SILVER METALLIC)		
8	4-964-184-01	KNOB POWER (LX56:BLACK)	
8	4-964-184-11	KNOB POWER	
	...(LX56:SILVER, SILVER METALLIC)		
9	4-947-487-01	RETURN LINK	
10	4-890-173-00	WASHER	
11	3-659-350-00	WASHER	
12	A-4604-947-A	RETURN ASSY, LEVER	
13	4-947-485-01	SPRING (22)	
14	4-947-510-01	NUT	
15	4-947-491-01	ARM REST	
16	A-4660-499-A	ARM CLIP ASSY	
17	4-947-477-01	CUEING (BASE)	
18	4-947-468-01	LEVER, CUEING	
19	4-963-537-01	SPRING	
20	4-963-536-01	LINK RETURN	
21	4-963-535-01	ADJUST CAM	
22	4-947-514-01	4MM CS RING	
23	4-947-467-01	SPRING (6)	
24	4-947-466-01	TONE ARM ELEVATOR	
25	A-4660-498-A	HINGE ASSY	
26	A-4384-982-A	PANEL (B) ASSY. FRONT (LX56: SILVER)	
26	A-4411-941-A	PANEL (B) ASSY. FRONT (LX56: SILVER METALLIC)	
26	A-4660-577-A	FRONT PANEL (G) ASSY (LX56: GRAY) (US)	
26	A-4660-578-A	FRONT PANEL (G) ASSY (LX56: BLACK)	
26	A-4660-976-A	FRONT PANEL (G) ASSY (LX56P)	
* 27	4-950-487-01	MAIN CABINET (B)...(BLACK)	
* 27	4-950-487-11	MAIN CABINET (B) ...(LX56:SILVER, SILVER METALLIC)	
28	4-947-505-01	CUSHION MOTOR	
29	4-947-504-01	COLLAR	
30	3-451-162-00	WASHER (56)	
31	3-701-445-21	WASHER	
32	4-947-498-01	STELL BALL	
33	4-947-497-01	GEAR	
34	4-947-496-01	SPRING (34)	
35	4-947-495-01	WIPER REJECT	
36	4-948-101-01	SPRING (38)	
37	A-4604-916-A	GEAR ASSY, SPUR	
38	4-947-503-01	BELT	

Ref. No.	Part No.	Description	Remark
39	4-947-494-01	TURNTABLE PLATTER	
40	4-947-539-01	RUBBER MAT	
41	A-4604-946-A	DUST COVER ASSY	
* 42	1-652-482-11	PHONO BOARD (LX56)	
* 42	1-644-410-11	CORD BOARD (LX56P)	
43	4-948-095-01	COVER, CARTRIDGE	
44	4-951-290-01	STYLUS (CN-234)	
45	A-4604-940-A	ARM ASSY, TONE	
46	4-947-464-01	COUNTER WEIGHT	
47	4-952-961-01	SCREW (LX56)	
* 48	1-649-845-11	RELAY BOARD (LX56)	
49	1-557-109-21	CORD, DC (LX56P)	
50	3-701-806-00	ADAPTOR, 45	
M1	A-4604-945-A	MOTOR ASSY	
SW1	1-570-666-11	SWITCH (LEAF)	
SW2	1-571-089-11	SWITCH, PUSH (SPEED) (1 KEY)	
SW3	1-692-211-11	SWITCH, PUSH (POWER) (1 KEY) (LX56)	
Δ SW4	1-692-835-11	VOLTAGE SELECTOR (LX-56: AUS, E, MX, MY, SP)	
Δ T1	1-450-987-11	TRANSFORMER, POWER (LX56: AEP, EE, IT, CIS)	
Δ T1	1-450-987-21	TRANSFORMER, POWER (LX56: AUS, E, PX, EA, JE, MX, SP)	
Δ T1	1-450-987-31	TRANSFORMER, POWER (LX56: MY)	
Δ T1	1-450-987-41	TRANSFORMER, POWER (LX56: U, CA)	

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list is given in the last of this parts list.

- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...

- CAPACITORS
uF : μ F
uH : μ H

- AUS : Australian model
- CND : Canadian model
- EE : East European model
- IT : Italian model
- MX : Mexican model
- EA : Saudi Arabia model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-410-11	CORD BOARD (LX56P) *****				ACCESSORIES & PACKING MATERIALS *****	
*****					3-758-045-11	MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	
*	1-652-482-11	PHONO BOARD (LX56) *****			3-758-045-21	MANUAL INSTRUCTION (English) (LX56 US, UK)	
		< CAPACITOR >			3-758-045-41	MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	
C1	1-126-012-11	ELECT 470uF 16V			3-758-045-51	MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)	
		< DIODE >			3-758-045-61	MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	
D1	8-719-200-82	DIODE 11ES2		*	4-947-532-01	SNOW BOX (L)	
D2	8-719-200-82	DIODE 11ES2		*	4-947-533-01	SNOW BOX (R)	
D3	8-719-200-82	DIODE 11ES2			3-701-806-00	ADAPTOR, 45	
D4	8-719-200-82	DIODE 11ES2		*****			
		< FUSE >				***** HARDWARE LIST *****	
Δ F1	1-532-613-XX	FUSE TIME-LAG (T200mA)					


*	1-649-845-11	RELAY BOARD (LX56) *****		#1	7-621-773-87	SCREW (64)	
*****				#2	7-623-210-22	WASHER (57)	
				#3	7-624-110-04	6MM E RING	
				#4	7-685-105-01	SCREW (59)	
				#5	7-685-645-79	SCREW (68)	
				#6	7-685-646-79	SCREW (60)	
				#7	7-685-647-79	SCREW (58)	
				#8	7-688-005-01	WASHER (69)	

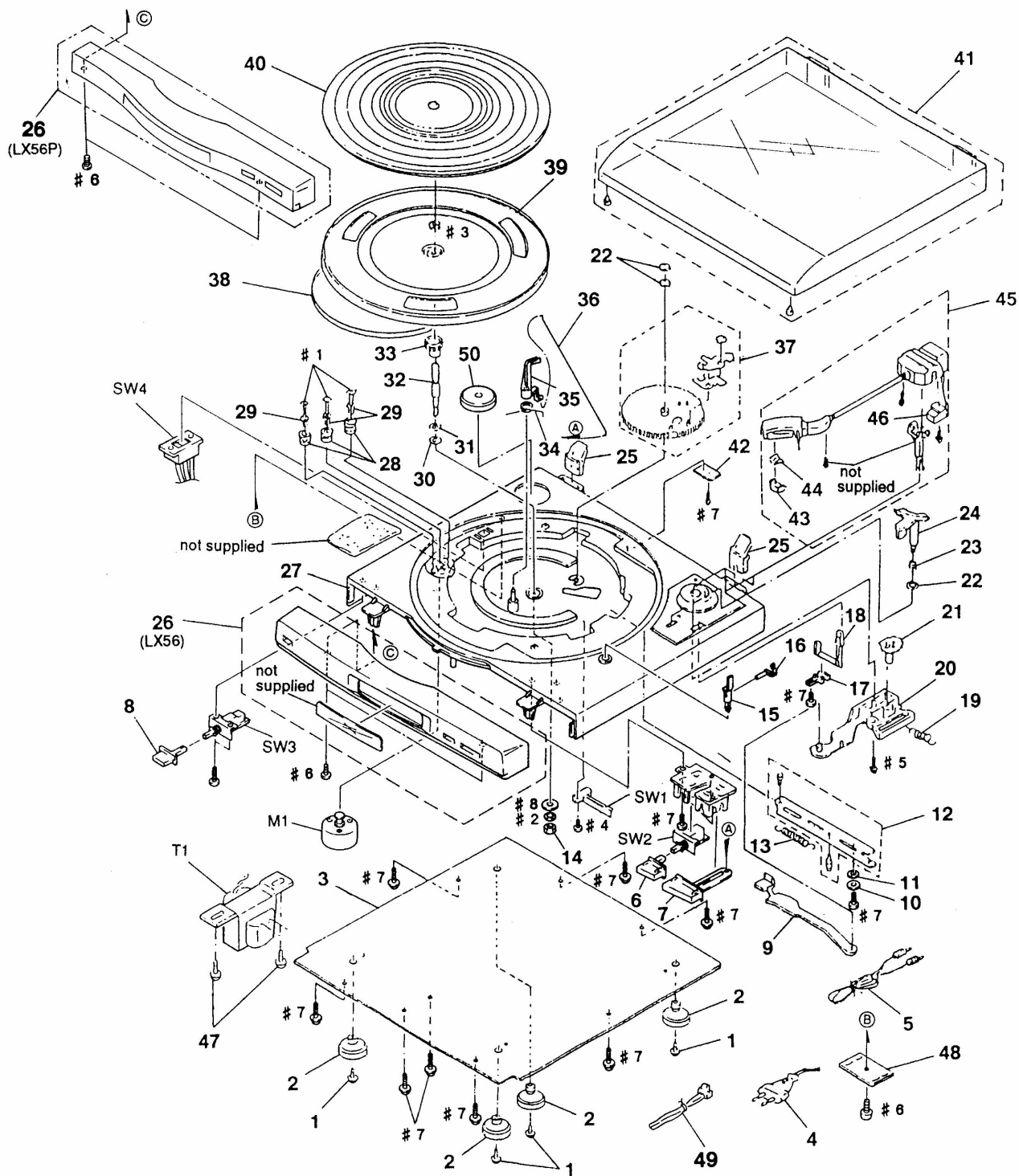
NOTE:

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
 - Items marked “ * ” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
- AUS : Australian model
 - CND : Canadian model
 - EE : East European model
 - IT : Italian model
 - MX : Mexican model
 - EA : Saudi Arabia model
 - SP : Singapore model
 - MY : Malaysia model
 - JE : Tourist

The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-950-497-01	FOOT SEAT		39	4-947-494-01	TURNTABLE PLATTER	
2	4-950-490-01	PLASTIC STAND		40	4-947-539-01	RUBBER MAT	
* 3	4-961-804-01	BUTTON BOARD		41	A-4604-946-A	DUST COVER ASSY	
△ 4	1-575-651-61	CORD, AC (LX56: AEP, EA, EE, IT, MX, MY, CIS, SP)		* 42	1-652-482-11	PHONO BOARD (LX56)	
△ 4	1-575-975-11	CORD, AC (LX56: CND, US)		* 42	1-644-410-11	CORD BOARD (LX56P)	
△ 4	1-590-074-11	CORD, AC (LX56: E)		43	4-948-095-01	COVER, CARTRIDGE	
△ 4	1-690-608-11	CORD, AC (LX56: AUS)		44	4-951-290-01	STYLUS (CN-234)	
△ 4	1-696-570-21	CORD, AC (LX56: UK)		45	A-4604-940-A	ARM ASSY, TONE	
5	1-555-116-11	CORD, PHONO...(BLACK)		46	4-947-464-01	COUNTER WEIGHT	
6	4-964-177-01	KNOB SPEED...(BLACK)		47	4-952-961-01	SCREW (LX56)	
6	4-964-177-11	KNOB SPEED ...(LX56:SILVER, SILVER METALLIC)		* 48	1-649-845-11	RELAY BOARD (LX56)	
7	4-964-178-01	KNOB REJECT...(BLACK)		49	1-557-109-21	CORD, DC (LX56P)	
7	4-964-178-11	KNOB REJECT ...(LX56:SILVER, SILVER METALLIC)		50	3-701-806-00	ADAPTOR, 45	
8	4-964-184-01	KNOB POWER (LX56:BLACK)		M1	A-4604-945-A	MOTOR ASSY	
8	4-964-184-11	KNOB POWER ...(LX56:SILVER, SILVER METALLIC)		SW1	1-570-666-11	SWITCH (LEAF)	
9	4-947-487-01	RETURN LINK		SW2	1-571-089-11	SWITCH, PUSH (SPEED) (1 KEY)	
10	4-890-173-00	WASHER		SW3	1-692-211-11	SWITCH, PUSH (POWER) (1 KEY) (LX56)	
11	3-659-350-00	WASHER		△ SW4	1-692-835-11	VOLTAGE SELECTOR (LX-56: AUS, E, MX, MY, SP)	
12	A-4604-947-A	RETURN ASSY, LEVER		△ T1	1-450-987-11	TRANSFORMER, POWER (LX56: AEP, EE, IT, CIS)	
13	4-947-485-01	SPRING (22)		△ T1	1-450-987-21	TRANSFORMER, POWER (LX56: AUS, E, PX, EA, JE, MX, SP)	
14	4-947-510-01	NUT		△ T1	1-450-987-31	TRANSFORMER, POWER (LX56: MY)	
15	4-947-491-01	ARM REST		△ T1	1-450-987-41	TRANSFORMER, POWER (LX56: U, CA)	
16	A-4660-499-A	ARM CLIP ASSY					
17	4-947-477-01	CUEING (BASE)					
18	4-947-468-01	LEVER, CUEING					
19	4-963-537-01	SPRING					
20	4-963-536-01	LINK RETURN					
21	4-963-535-01	ADJUST CAM					
22	4-947-514-01	4MM CS RING					
23	4-947-467-01	SPRING (6)					
24	4-947-466-01	TONE ARM ELEVATOR					
25	A-4660-498-A	HINGE ASSY					
26	A-4384-982-A	PANEL (B) ASSY, FRONT (LX56: SILVER)					
26	A-4411-941-A	PANEL (B) ASSY, FRONT (LX56: SILVER METALLIC)					
26	A-4660-577-A	FRONT PANEL (G) ASSY (LX56: GRAY) (US)					
26	A-4660-578-A	FRONT PANEL (G) ASSY (LX56: BLACK)					
26	A-4660-976-A	FRONT PANEL (G) ASSY (LX56P)					
* 27	4-950-487-01	MAIN CABINET (B) ...(BLACK)					
* 27	4-950-487-11	MAIN CABINET (B) ...(LX56:SILVER, SILVER METALLIC)					
28	4-947-505-01	CUSHION MOTOR					
29	4-947-504-01	COLLAR					
30	3-451-162-00	WASHER (56)					
31	3-701-445-21	WASHER					
32	4-947-498-01	STELL BALL					
33	4-947-497-01	GEAR					
34	4-947-496-01	SPRING (34)					
35	4-947-495-01	WIPER REJECT					
36	4-948-101-01	SPRING (38)					
37	A-4604-916-A	GEAR ASSY, SPUR					
38	4-947-503-01	BELT					

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list is given in the last of this parts list.

- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H
- AUS : Australian model
- CND : Canadian model
- EE : East European model
- IT : Italian model
- MX : Mexican model
- EA : Saudi Arabia model
- SP : Singapore model
- MY : Malaysia model
- JE : Tourist

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-410-11	CORD BOARD (LX56P) *****				ACCESSORIES & PACKING MATERIALS *****	
		*****				3-758-045-11 MANUAL INSTRUCTION (English, French, Spanish, Portuguese) (LX56 AEP, CND)	
*	1-652-482-11	PHONO BOARD (LX56) *****				3-758-045-21 MANUAL INSTRUCTION (English) (LX56 US, UK)	
		< CAPACITOR >				3-758-045-41 MANUAL INSTRUCTION (German, Dutch, Swedish, Italian) (LX56 AEP, IT)	
C1	1-126-012-11	ELECT 470uF	16V			3-758-045-51 MANUAL INSTRUCTION (English, French, Spanish, Chinese) (LX56 AUS, E, PX, MX, EA, MY, SP, JE)	
		< DIODE >				3-758-045-61 MANUAL INSTRUCTION (English, German, Polish) (LX56 EE, CIS)	
D1	8-719-200-82	DIODE 11ES2		*	4-947-532-01	SNOW BOX (L)	
D2	8-719-200-82	DIODE 11ES2		*	4-947-533-01	SNOW BOX (R)	
D3	8-719-200-82	DIODE 11ES2			3-701-806-00	ADAPTOR, 45	
D4	8-719-200-82	DIODE 11ES2				*****	
		< FUSE >				*****	
Δ F1	1-532-613-XX	FUSE TIME-LAG (T200mA)				HARDWARE LIST *****	
		*****				#1 7-621-773-87 SCREW (64)	
*	1-649-845-11	RELAY BOARD (LX56) *****				#2 7-623-210-22 WASHER (57)	
		*****				#3 7-624-110-04 6MM E RING	
		*****				#4 7-685-105-01 SCREW (59)	
		*****				#5 7-685-645-79 SCREW (68)	
		*****				#6 7-685-646-79 SCREW (60)	
		*****				#7 7-685-647-79 SCREW (58)	
		*****				#8 7-688-005-01 WASHER (69)	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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PS-LX56/LX56P

SONY[®]

SERVICE MANUAL

US Model
Canadian Model
PX Model
Tourist Model
PS-LX56
AEP Model
UK Model
E Model
Australian Model
PS-LX56/LX56P

SUPPLEMENT-3

File this supplement with the service manual.

Subject: SILVER METALLIC MODEL ADDITION (PS-LX56)

- PS-LX56 (SILVER METALLIC MODEL) is similar to the earlier PS-LX56 (BLACK MODEL).
- Refer to the previous issued service manual for information not contained in this supplement-3.

DIFFERENCE TABLE

Page	PS-LX56 (BLACK Model)				PS-LX56 (SILVER METALLIC Model)			
	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
7	6	4-964-177-01	KNOB SPEED		6	4-964-177-11	KNOB SPEED	
	7	4-964-178-01	KNOB REJECT		7	4-964-178-11	KNOB REJECT	
	8	4-964-184-01	KNOB POWER (LX56)		8	4-964-184-11	KNOB POWER	
	26	A-4660-578-A	FRONT PANEL (G) ASSY (LX56:BLACK)		26	A-4411-941-A	PANEL (B) ASSY, FRONT	
	* 27	4-950-487-01	MAIN CABINET (B)		* 27	4-950-487-11	MAIN CABINET (B)	

NOTE:

- Items marked "*" are not stocked since they are seldom required for routine service.
Some delay should be anticipated when ordering these items.